

Woodwalk, Hoyland– BS 5837: 2012 Arboricultural Report, Impact Assessment and Method Statement

Bellway Homes LTD (Yorkshire)

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Executive Summary

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

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

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

The survey recorded thirty-eight individual trees, eleven tree groups* and six hedgerows. These were generally located close to the site boundaries and provided a good level of screening between the site and its surroundings. *Groups G004 – G006 from the original survey were subsequently divided and reassessed.

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

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

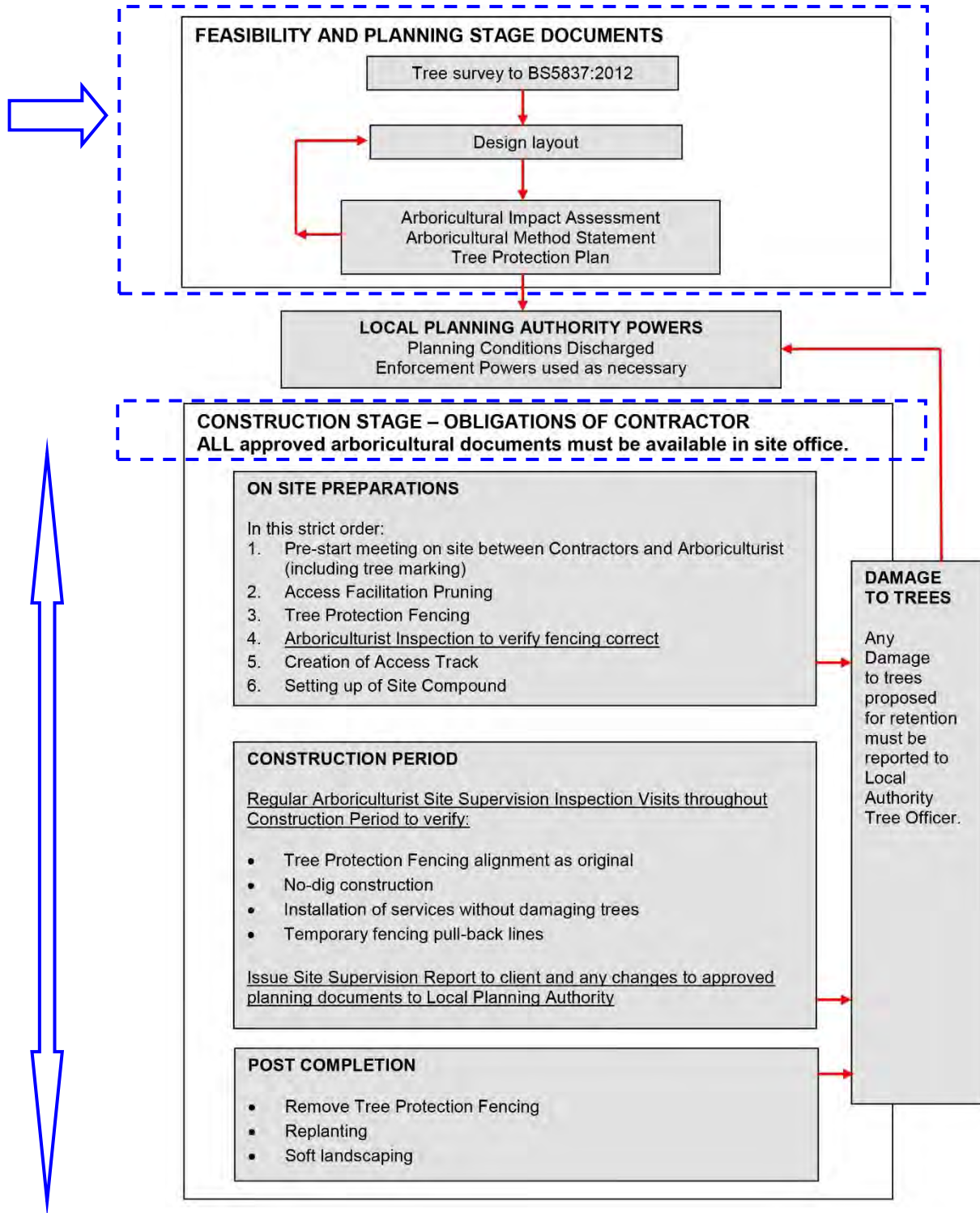
The Client proposes the construction of a residential development with associated access, landscaping and facilities. This will require the removal of 24 individual trees, in addition to the partial removal of one (1) tree group and two (2) sections of hedgerow. The proposal(s) may also have an impact on the roots, stems and canopies of retained trees unless suitable protection measures are put in place.

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

1. Introduction

1.1 Context of this Report in the Planning System

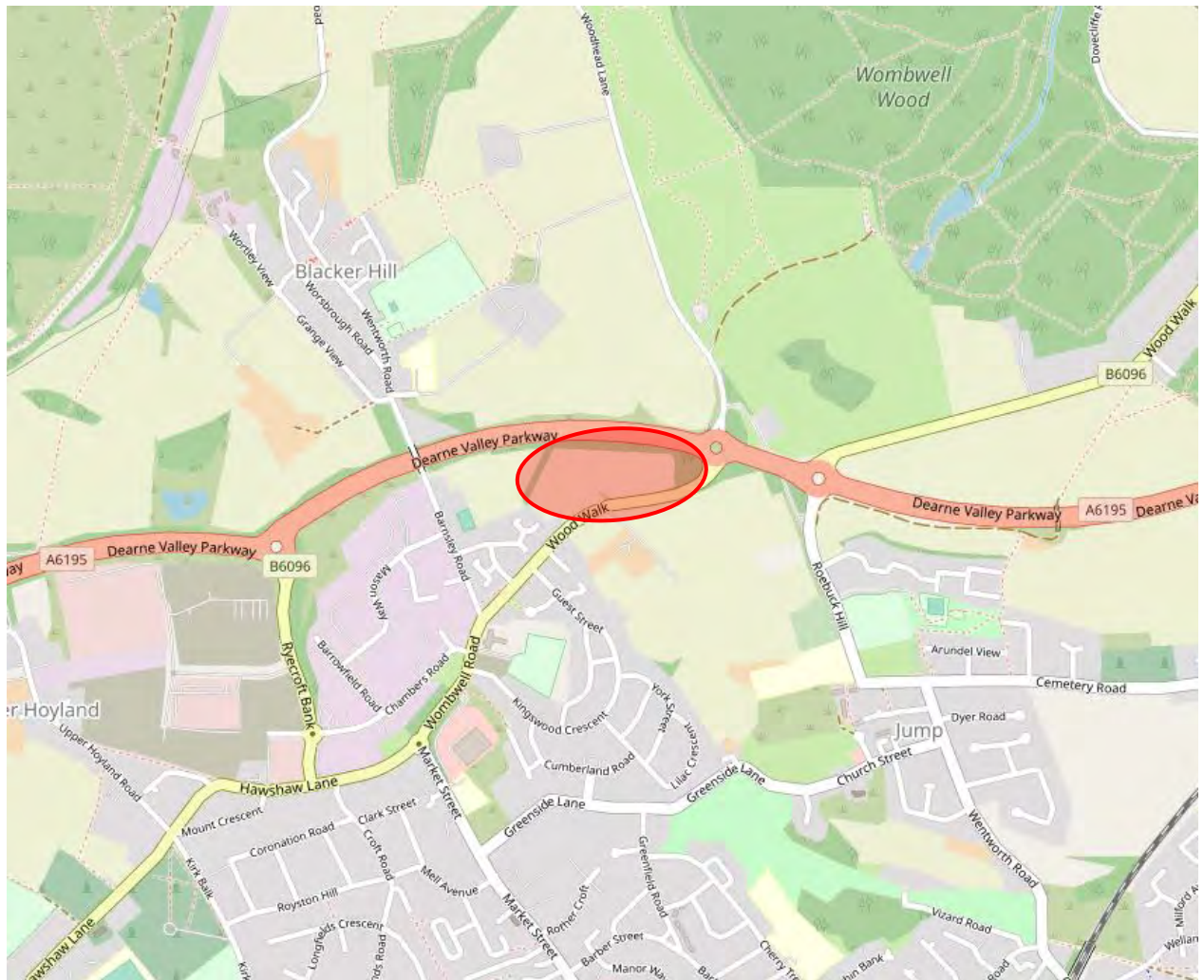
Figure 1: The Design and Construction Process and Tree Care



1.2 Location

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

Figure 2: Location Map



© OpenStreetMap contributors

1.3 Tree Designations

- 1.3.1 The information available on the Barnsley Metropolitan Borough Council website (www.barnsley.gov.uk/barnsley-maps/tree-preservation-orders) has confirmed that the site is not located within a conservation area and no trees included in the survey are protected by a TPO.
- 1.3.2 Reference to the Multi Agency Geographical Information for the Countryside (MAGIC) website indicates that no ancient woodland is present within a 15-metre buffer of the subject site.

1.4 Protected Species

Bats

- 1.4.1 Mature trees can often contain cavities or hollows, which provide potential roosting locations for bats. Bats and the places they use for shelter or protection (i.e., roosts) are protected under *The Conservation of Habitats and Species Regulations 2017* (Habitats Regulations 2017). They also receive legal protection under the *Wildlife and Countryside Act* (WCA) 1981. Consequently, causing damage to a bat roost constitutes an offence.
- 1.4.2 Generally, should the presence of a bat roost be suspected whilst completing works on any trees on site, then an appropriately licensed bat worker should be consulted for advice.

Birds

- 1.4.3 Trees and hedgerows can provide habitat for nesting birds, which are protected under the *Wildlife and Countryside Act* (WCA) 1981. Some species are further protected by special penalties. This legislation makes it an offence to intentionally or recklessly damage or destroy an active bird nest or part thereof.
- 1.4.4 As the trees at the site provide potential habitat for nesting birds, all tree work should ideally be completed outside the peak nesting bird season (Generally March to August inclusive).
- 1.4.5 If this is not possible, then the vegetation should be subject to a nesting bird inspection by a suitably experienced ecologist before commencement of works. If active nests are identified, then the vegetation and a defined buffer zone will need to remain in place until the young have fully fledged.

2. Tree Survey Methodology

2.1 Site survey

- 2.1.1 Cura Terra has undertaken the tree survey in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction – Recommendations*, to provide detailed and independent arboricultural advice in the context of planned development. The survey was a ground-based visual inspection carried out by a suitably qualified arboriculturist. No trees were tagged as part of the survey.
- 2.1.2 The initial tree inspection was carried out in July 2023 by Dave Farmer, FdSc MArborA, Senior Arboricultural Consultant, when deciduous trees are generally in leaf.
- 2.1.3 The weather on the day of the survey was clear and bright. This allowed for a thorough inspection of all trees included in the survey.
- 2.1.4 The Client subsequently commissioned a resurvey to evaluate the implications of a revised proposal and to supply data enabling an assessment of the potential impact of the trees on soil shrinkage.
- 2.1.5 The resurvey concentrated on the woodland group to the west and north of the site.
- 2.1.6 A follow-up survey was carried out by Liam Evans, Arboricultural consultant, in October 2025, when the trees were in partial leaf.
- 2.1.7 The weather on this day was dry and bright. This allowed for a thorough inspection of all trees included in the survey.
- 2.1.8 The survey recorded all trees with a stem diameter of 75mm or more at a height of 1.5m above ground level within the site boundary. Any significant trees outside the boundary which could be significantly affected by the future development of the site were also recorded.
- 2.1.9 The following characteristics were recorded:
- Species
 - Stem diameter at 1.5m above ground level (mm)
 - Estimated height (m)
 - Approximate crown spread (m) in north, east, south and west directions
 - Estimate of the number of years that the tree is likely to remain suitable for retention
 - Age class
 - Condition category in accordance with BS 5837:2012. The categories are defined as:
 - **Category U** = Those in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years
 - **Category A** = Trees of high quality with an estimated remaining life expectancy of at least 40 years
 - **Category B** = Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
 - **Category C** = Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150mm

- Value subcategories where appropriate in accordance with BS 5837:2012. These are defined as:
 - 1 = Mainly arboricultural qualities
 - 2 = Mainly landscape qualities
 - 3 = Mainly cultural values, including conservation
- General notes about physiological and structural condition and any management recommendations

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

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

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

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

2.2 Calculation of Root Protection Area (RPA)

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

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

3. Tree Survey Results

3.1 General Site Description

- 3.1.1 The site was a former agricultural field located in the Hoyland area of Barnsley, approximately 5.5 kilometres to the south east of Barnsley town centre.
- 3.1.2 Trees at the site were predominantly located close to the boundaries, both within the site and in neighbouring properties.
- 3.1.3 The site was surrounded to the north, east and south by public highways and to the west by an open area of playing fields and several residential properties.

3.2 Results of Tree Survey

- 3.2.1 The Tree Survey Schedule in Appendix 1 details the results of the tree survey and includes any management recommendations. The schedule should be read in conjunction with the tree plans in Appendix 3, which show the location of each tree and group surveyed and the extent of their canopies and RPA.
- 3.2.2 Thirty-eight individual trees, eleven tree groups* and six hedgerows have been recorded during the survey - A summary of the tree survey findings is shown in Table 1.

Table 1: Summary of Tree Survey Findings

Category A	Category B	Category C	Category U
Trees: 0	Trees: 21	Trees: 17	Trees: 0
Groups: 0	Groups: 8*	Groups: 3	Groups: 0
Hedgerows: 0	Hedgerows: 0	Hedgerows: 6	Hedgerows: 0

**Groups G004-G006 (from the initial survey) were subsequently resurveyed and split during the October 2025 site visit.*

- 3.2.3 The site’s most significant individual trees included the large Sycamore - T001, and Common Ash - T012. These mature trees were visually prominent, both from within the site and for some distance to the south and east, due to their roadside locations. Whilst T001 appeared to have good prospects, T012 had symptoms consistent with Ash Dieback (ADB), which could significantly limit its ultimate lifespan and longer-term suitability within the site.
- 3.2.4 The tree groups G004 (now renamed G047), G005 (now renamed G048 – G056), and G006 (now renamed G057 and G058) each formed significant features which were in keeping with the surrounding landscape character. Although the trees were individually of lower merit, they collectively provided a high level of amenity value and, alongside the various hedgerow groups, provided comprehensive screening between much of the site and its surroundings.

3.3 Ash Die Back (*Hymenoscyphus fraxineus*)

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

- 3.3.2 It is difficult to assign ash trees a retention category using the BS5837:2012 standards because of ADB. The general advice from public bodies is to retain ash trees and see how the disease develops within the local population. However, if clear signs of ADB are found on sites, all the ash trees on that site will likely succumb in time. It could, therefore, be unreasonable to consider an ash tree a significant constraint to development.
- 3.3.3 The Tree Council has produced a document giving guidance to tree owners and managers on how to deal with ADB. *Ash dieback: an Action Plan Toolkit* (Summer 2019)¹. This gives guidance on assessing the danger posed by trees infected with ADB. Ecus have adopted the Suffolk County Council Ash Health Assessment System (Appendix 4). The system categorises ash trees with ADB symptoms into 4 classes:
- Ash Health Class (AHC) 1 – 100% - 75% Live Canopy (Vitality Class 0)
 - Ash Health Class (AHC) 2 – 75% - 50% Live Canopy (Vitality Class 1)
 - Ash Health Class (AHC) 3 – 50% - 25% Live Canopy (Vitality Class 2)
 - Ash Health Class (AHC) 4 – 25% - 0% Live Canopy (Vitality Class 3)
- 3.3.4 Many local authorities have concluded that any trees which fall within AHC 3 and 4 require management, and it seems reasonable to follow a similar system. The priority of that management depends on the severity of the tree's condition, with trees declining from AHC 2 into AHC 3 requiring work as part of a program of regular works. As the trees decline towards AHC 4, action becomes more urgent to abate any hazard, assuming the tree is in a high-risk area

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

4. Arboricultural Impact Assessment (AIA)

4.1 Introduction

4.1.1 A BS 5837:2012 Arboricultural Impact Assessment (AIA) has been carried out for all trees included in the survey. The AIA methodology evaluates the potential direct and indirect impacts the proposed development could have on the trees at the site. Where necessary, mitigation measures are recommended.

4.1.2 BS 5837:2012 paragraph 5.4.2 states:

“The assessment should take account of the effects of any tree loss required to implement the design, and any potentially damaging activities proposed in the vicinity of retained trees. Such activities might include the removal of existing structures and hard surfacing, the installation of new hard surfacing, the installation of services, and the location and dimensions of all proposed excavations or changes in ground level, including any that might arise from the implementation of the recommended mitigation measures. In addition to the impact of the permanent works, account should be taken of the buildability of the scheme in terms of access, adequate working space, and provision for the storage of materials, including topsoil.”

4.2 Development Proposals

4.2.1 The Client proposes the construction of 83 residential plots and their associated landscaping, facilities and services.

4.2.2 The updated drawing includes the proposal to construct a 2.2-meter wall to the east of the site. The proposed wall will have implications for the trees, which were previously recorded as G004, and have been subsequently surveyed in more detail. The details are detailed in the Tree Survey Schedule in Appendix 1.

4.2.3 The AIA is based on the development layout provided by the Client (ref: 2512.01 revision J dated 23.09.25)

4.3 Tree Retention and Removal

4.3.1 The development proposals indicate that 24 trees (T015 – T023, T025, T026 & T028 - T040), along with the partial removal of one (1) group (G047) and sections of two (2) hedgerows (H003 & H009) will be required to facilitate the new development, as they are situated in the footprint of new structures or their retention and protection throughout the development is not considered suitable.

4.3.2

Trees to be Removed			Trees to be Retained		
Category A	Category B	Category C	Category A	Category B	Category C
Trees: 0	Trees: 18	Trees: 6	Trees: 0	Trees: 3	Trees: 11
Groups: 0	Groups: 0	Groups: 0	Groups: 0	Groups: 8*	Groups: 3
Hedgerows: 0	Hedgerows: 0	Hedgerows: 0	Hedgerows: 0	Hedgerows: 0	Hedgerows: 6*
Total: 0	Total: 18	Total: 6	Total: 0	Total: 11	Total: 20

* Includes the partial removal/pruning (only) of H003, H009 and G047 – refer to Schedule

- 4.3.3 Trees T015 – T040 are of a medium to low quality and have formed part of a woodland plantation to the east of the site (G047). The trees within this group are comprised of established, semi-mature trees with a woodland understory.
- 4.3.4 The partial removal of sections of the hedgerows H003 and H009 will have a negligible impact.
- 4.3.5 The loss of trees designated for removal can be offset by (tree) planting within the development boundary.
- 4.3.6 The development proposals have allowed space for the planting of replacement trees throughout the site once construction is complete. The planting of diverse tree species that are in-keeping with the surrounding landscape character and tolerant of climate change can mitigate the required removals and, in the longer term, increase the amenity value and ecosystem service benefits that the site's trees provide.

4.4 Tree Pruning

- 4.4.1 The pruning of trees should only be undertaken where essential, to prevent open wounds that can lead to bacterial or fungal infection. Pruning works should generally be undertaken during the winter months when the tree is dormant or during the summer months when the tree is fully active.
- 4.4.2 Pruning work may be required to trim G048 and G049 back to the boundary line to establish the boundary fence and construct the proposed retaining wall.
- 4.4.3 H002, H003, H007, H009, H010, H011 are unmanaged hedges and look untidy. These could be pruned to look aesthetically pleasing and to complement the new development
- 4.4.4 Any pruning works that are required to facilitate the development are detailed in the Tree Survey Schedule at Appendix 1.
- 4.4.5 Tree pruning/removal should be carried out by a suitably qualified and insured arboricultural contractor and in accordance with the recommendations of BS 3998:2010 Tree work – Recommendations.

4.5 Impacts from Demolition/Construction Operations

- 4.5.1 Where proposed operations encroach beneath the canopy or into the RPA of retained trees, there is the potential for damage to occur.
- 4.5.2 New hard surfaces are proposed within the RPA of the retained tree T041#. In this instance, the encroachment is particularly minor, and the tree is unlikely to be significantly affected. Excavations at the edge of the RPA can often be carried out without significantly impacting the tree through the careful pruning of minor roots that become exposed.
- 4.5.3 All works within the RPA or beneath the canopy of retained trees have been detailed as part of the Arboricultural Method Statement at Appendix 3, to ensure that these works are carried out in a manner that eliminates the likelihood of any damage occurring.

4.6 Mitigation and Protection

- 4.6.1 The retained trees will need to be protected from development operations to ensure that they are not negatively impacted during the development. This has been detailed as part of the Arboricultural Method Statement (AMS) in Appendix 3.
- 4.6.2 Where existing hard surfaces are present within the RPA of retained trees, they should be kept in place where possible, even if they are not part of the design proposals. These hard surfaces will provide ground protection for any roots present beneath the hard surface during development works.
- 4.6.3 Any works that are proposed beneath the canopy or within the RPA of retained trees must be

carried out as specified in the AMS. These works will likely need to be supervised by the project arboriculturist so that any tree-related issues that occur can be suitably dealt with.

- 4.6.4 To compensate for potential root damage and stress caused by construction activities, retained trees on-site should be mulched. The materials that may be used include wood chip, pulverised bark, or leaf mould. The mulched area should extend throughout the open ground within the RPA. The depth of an organic mulch should not be so much as to inhibit aeration of the root system or to cause overheating (Approximately 50 mm to 100 mm).
- 4.6.5 Where the removal of trees is required to facilitate the development, the planting of suitable replacement trees will be required as part of a wider landscaping scheme. It is recommended that tree planting follows a 5 – 10 – 20 - 30 formula (i.e., No more than 5% of any one cultivar, no more than 10% of any one species, no more than 20% of any one genus, and no more than 30% of any one family.) This gives any new tree population greater resilience against pests and diseases.
- 4.6.6 Tree planting and establishment should be carried out in accordance with BS 8545:2014 Trees: from nursery to independence in the landscape – Recommendations.

5. References

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

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

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

Appendix 1: Tree Survey Schedule

Table 2: Tree Survey Schedule

Key:	Symbols Used	Age Class	SLE	Comments	Management	Category								
	< = less than ~ = approximately > = greater than # = estimated	Young, Semi mature, Early mature, Mature or Over mature	Estimate of Safe Life Expectancy (<10 Years, 10+ Years, 20+ Years or 40+ Years)	AGL - Above Ground Level MS - Multi-Stemmed TD - Trunk Division (height in m) DED - Dutch Elm Disease ADB - Ash Die Back AHC (1, 2, 3 or 4) - Ash Health Class	<i>Tree works that are recommended regardless of future development are in Italics</i> Tree works that are required to facilitate the proposed development are in Bold	BS 5837:2012 Retention Categories: U - Unsuitable for retention A - High B - Moderate C - Low Sub-categories: 1 - Mainly arboricultural qualities 2 - Mainly landscape qualities 3 - mainly cultural value								
Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m) N E S W	Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
T001	Sycamore (<i>Acer pseudoplatanus</i>)	15	1	680 #	7.5 5.5 6 6	2.5	Mature	40+ Years	Good	Growing within boundary hedgerow, dense epicormic growth at base, several old pruning wounds low on stem	-	B1	8.2	209
H002	Elder (<i>Sambucus nigra</i>) Blackthorn (<i>Prunus spinosa</i>) Hawthorn (<i>Crataegus monogyna</i>)	3.5	>10	50 avg.	See Plan	0	Semi Mature	40+ Years	Fair	Dense unmanaged hedgerow	Bring into formal management	C2	-	-
H003	Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Willow (<i>Salix viminalis</i>)	4	>10	70 avg.	See Plan	0	Early Mature	40+ Years	Fair	Dense unmanaged hedgerow, eastern end largely inaccessible due to surrounding fencing & dense undergrowth, minor crown dieback in central areas	Removal/pruning back of a small section that extends towards vehicle parking area and generally bring into formal management	C2	-	-
G004 Relabelled as G047#	Not in use													

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
G005 Relabelled as groups G048 - G056	Not in use																
G006 Relabelled as groups G057# and G058	Not in use																
H007	Elder (<i>Sambucus nigra</i>) Ash (<i>Fraxinus excelsior</i>) Sycamore (<i>Acer pseudoplatanus</i>) Hawthorn (<i>Crataegus monogyna</i>)	6	>10	160 avg.	See Plan				0.5	Semi Mature	40+ Years	Fair	Previously unmanaged hedgerow that is beginning to develop into a linear group of individual trees, generally multi-stemmed with occasional dead branch & snapped stem, surrounded by dense brambles & undergrowth	Generally bring into formal management	C2	-	-
T008	Cherry (<i>Prunus avium</i>)	6.5	1	110	1.5	1.5	1.5	1.5	1.5	Young	40+ Years	Good	Growing against low fence in neighbouring property, no obvious defects	-	C1	1.3	5.3
H009	Elder (<i>Sambucus nigra</i>) Hawthorn (<i>Crataegus monogyna</i>)	3.5	>10	50 avg.	See Plan				0	Semi Mature	40+ Years	Fair	Sparse unmanaged hedgerow	Remove eastern section and generally bring remainder into formal management	C2	-	-
H010	Hawthorn (<i>Crataegus monogyna</i>) Elder (<i>Sambucus nigra</i>)	3	>10	50 avg.	See Plan				0	Semi Mature	40+ Years	Fair	Sparse unmanaged hedgerow	Bring into formal management	C2	-	-

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
H011	Hawthorn (<i>Crataegus monogyna</i>)	3	>10	50 avg.	See Plan				0	Semi Mature	40+ Years	Good	Previously managed hedgerow, now becoming overgrown	Bring into formal management	C2	-	-
T012	Ash (<i>Fraxinus excelsior</i>)	17	1	790	5	4.5	6.5	5	2	Mature	10+ Years	Fair	Recent earthworks carried out near to stem, dense epicormic growth at base, several old pruning wounds and signs of historical damage on stem & low in crown, sparse foliage & minor crown dieback of upper branches, symptoms consistent with ash dieback disease, decayed inonotus hispidus bracket at base	-	C1	9.5	284
T013#	Field maple (<i>Acer campestre</i>)	15#	1	320	3	3	3	3	3	Semi Mature	10+ Years	Fair	Matured plantation. Damage to exposed roots. Crown vitality reduced.	-	C1	3.8	45
T014#	Field maple (<i>Acer campestre</i>)	15#	1	210	3	3	3	3	3	Semi Mature	10+ Years	Fair	Matured plantation. Damage to exposed roots. Crown vitality reduced.	-	C1	0.4	1
T015	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	310	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	3.7	43
T016	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	270	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	3.2	32
T017	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	330	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	3.7	43

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
T018	Small-leaved lime (<i>Tilia cordata</i>)	6#	2	80, 80	1	1	1	1	0	Semi Mature	10+ Years	Fair	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary. Poor form suppressed by neighbouring trees	Remove to facilitate the proposed retaining wall	C1	1.4	6
T019	Common beech (<i>Fagus sylvatica</i>)	14#	1	240	3	3	3	3	0	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	2.9	26
T020	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	250	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	4	50
T021	Small-leaved lime (<i>Tilia cordata</i>)	4#	2	80, 80	3	3	3	3	0	Semi Mature	10+ Years	Fair	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary. Historically been flailed	Remove to facilitate the proposed retaining wall	C1	1.4	6
T022	Common hawthorn (<i>Crataegus monogyna</i>)	4	2	80, 80	2	2	2	2	0	Semi Mature	10+ Years	Fair	Edge of the plantation behind stock fencing. Historically topped to clear power lines	Remove to facilitate the proposed retaining wall	C1	1.4	6
T023	Hazel (<i>Corylus avellana</i>)	4	2	80, 100	2	2	2	2	0	Semi Mature	10+ Years	Fair	Edge of the plantation behind stock fencing. Coppice stool that has been historically topped to clear power lines	Remove to facilitate the proposed retaining wall	C1	1.5	7
T024#	Field maple (<i>Acer campestre</i>)	15#	2	270, 260	4#	4#	4#	4#	0	Early Mature	20+ Years	Good	Good form, part of the maturing plantation	–	B1	4.5	64
T025	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	270	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	3.2	32
T026	Small-leaved lime (<i>Tilia cordata</i>)	15#	2	230, 220	4#	4#	4#	4#	2	Semi Mature	10+ Years	Fair	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary. Acute union at 500mm appears fused.	Remove to facilitate the proposed retaining wall	C1	3.8	45

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
T027#	Hazel (<i>Corylus avellana</i>)	8#	2	110, 120	4#	4#	4#	4#	0	Early Mature	20+ Years	Fair	Lapsed coppice stool, typical of woodland	-	C1	2	13
T028	Small-leaved lime (<i>Tilia cordata</i>)	18#	1	350	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Maturing tree stock from plantation	Remove to facilitate the proposed retaining wall	B1	4.2	55
T029#	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	240	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	2.9	26
T030#	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	220	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing, which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	2.6	21
T031#	Common hawthorn (<i>Crataegus monogyna</i>)	2	2	80, 80	1	1	1	1	0	Semi Mature	20+ Years	Fair	Woodland understory	Remove to facilitate the proposed retaining wall	C	1.4	6
T032#	Sycamore (<i>Acer pseudoplatanus</i>)	15#	1	220	4#	4#	4#	4#	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	3.2	32
T033#	Sycamore (<i>Acer pseudoplatanus</i>)	12#	2	180, 140	3	3	3	3	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary. Twin stem at 300mm	Remove to facilitate the proposed retaining wall	B1	2.7	23
T034#	Small-leaved lime (<i>Tilia cordata</i>)	16#	2	220, 140	3	3	3	3	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary. Twin stem at 300mm	Remove to facilitate the proposed retaining wall	B1	3.1	30
T035#	Small-leaved lime (<i>Tilia cordata</i>)	16#	2	200, 170	3	3	3	3	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary. Twin stem at 300mm	Remove to facilitate the proposed retaining wall	B1	3.1	30
T036#	Small-leaved lime (<i>Tilia cordata</i>)	16#	2	250, 150	4	4	4	4	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary. Twin stem at 300mm	Remove to facilitate the proposed retaining wall	B1	3.5	38

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
T037#	Small-leaved lime (<i>Tilia cordata</i>)	16#	2	270, 210	4	4	4	4	2	Semi Mature	20+ Years	Good	Linear group at the edge of the plantation outside the stock fencing which defines the boundary. Twin stem at 300mm	Remove to facilitate the proposed retaining wall	B1	3.5	38
T038#	Small-leaved lime (<i>Tilia cordata</i>)	16#	2	260, 100	4	4	4	4	2	Semi Mature	20+ Years	Good	Tree on woodland plantation edge outside the stock fencing which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	3.3	34
T039#	Small-leaved lime (<i>Tilia cordata</i>)	18#	1	330	4	4	4	4	2	Semi Mature	20+ Years	Good	Tree on woodland plantation edge outside the stock fencing which defines the boundary.	Remove to facilitate the proposed retaining wall	B1	4	50
T040#	Small-leaved lime (<i>Tilia cordata</i>)	18#	3	330, 300, 300	5	5	5	5	2	Semi Mature	20+ Years	Good	Tree on new woodland edge. Multi-stemmed at 1m with acute unions	Remove to facilitate the proposed retaining wall	B1	6.4	129
T041#	Hazel (<i>Corylus avellana</i>)	3	6	100	3	3	3	3	0	Semi Mature	10+ Years	Fair	Lapsed coppice stool	–	C1	2.9	26
T042#	Common hawthorn (<i>Crataegus monogyna</i>)	8	2	80, 80	2	2	2	2	0	Semi Mature	20+ Years	Fair	Woodland understory	–	C1	1.4	6
T043#	Hazel (<i>Corylus avellana</i>)	3	6	100	3	3	3	3	0.5	Semi Mature	10+ Years	Fair	Lapsed coppice stool	–	C1	2.9	26
T044#	Hazel (<i>Corylus avellana</i>)	3	6	100	3	3	3	3	0.5	Semi Mature	10+ Years	Fair	Lapsed coppice stool	–	C1	2.9	26
T045#	Hazel (<i>Corylus avellana</i>)	3	6	100	3	3	3	3	0.5	Semi Mature	10+ Years	Fair	Lapsed coppice stool	–	C1	2.9	26
T046#	Hazel (<i>Corylus avellana</i>)	3	6	100	3	3	3	3	0.5	Semi Mature	10+ Years	Fair	Lapsed coppice stool	–	C1	2.9	26

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
G047#	Mixed woodland (Mixed woodland) Hazel (<i>Corylus avellana</i>) Field maple (<i>Acer campestre</i>)	8	1	200	See Plan				0	Semi Mature	10+ Years	Fair	Hazel coppice stools with an average diameter of 80mm. Field maple and hawthorn. Diameter average at 80mm. Spacing at 3m. More established specimens have been plotted	Partial removal to facilitate the proposed retaining wall	C1	–	–
G048#	Blackthorn (<i>Prunus spinosa</i>) Mixed woodland (Mixed woodland) Common hawthorn (<i>Crataegus monogyna</i>)	4#	1	200	See Plan				0	Semi Mature	20+ Years	Fair	Behind secured existing heras fencing. Dense scrub with small diameter stems averages less than 50mm. Planted as a hawthorn edge. Previously topped. Maturing field maple along the boundary	Prune back to the wooden fence to facilitate development	C1	–	–
G049#	Mixed woodland (Mixed woodland) Elder (<i>Sambucus nigra</i>) Blackthorn (<i>Prunus spinosa</i>)	4#	1	200	See Plan				0	Semi Mature	20+ Years	Fair	Behind secured existing heras fencing. Dense scrub with small diameter stems averages less than 50mm. No mature trees within the group	Prune back to the wooden fence to facilitate development	C1	–	–
G050#	Field maple x2 (<i>Acer campestre</i>) Silver birch (<i>Betula pendula</i>) Common hawthorn x6 (<i>Crataegus monogyna</i>)	15#	9	120	See Plan				0	Semi Mature	20+ Years	Good	Plantation has now matured, with established trees 1m apart. 1st row, 6m north of the wooden fence. Understory made up of Hawthorne, dogwood and dog rose	–	B2	–	–

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
G051#	Silver birch (<i>Betula pendula</i>) Goat willow (<i>Salix caprea</i>) Blackthorn (<i>Prunus spinosa</i>) Crack willow (<i>Salix fragilis</i>)	15#	1	200	See Plan				0	Semi Mature	20+ Years	Good	Recorded from the roadside, due to dense vegetation. Established linear group of 3 silver birch, approx. 10m from the road, roadside with an estimated 180 dbh. Silver Birch is the dominant tree within the group Multi-stemmed goat willow is estimated 6m from the fence with a stem diameter estimated at 80mm. Crack willow and hawthorn understory. Maturing blackthorn to the west of the group	-	B2	-	-
T052#	Silver birch (<i>Betula pendula</i>)	16	1	210	3	3	3	3	0	Semi Mature	20+ Years	Good	Matured from the plantation. Typical data sets for the group to give typical values throughout the group for similar trees	-	B2	2.5	20
G053#	Silver birch x6 (<i>Betula pendula</i>) Common dogwood (<i>Cornus sanguinea</i>) Common hawthorn (<i>Crataegus monogyna</i>) Alder (<i>Alnus sp.</i>) Goat willow (<i>Salix caprea</i>)	15#	8	200	See Plan				0	Semi Mature	20+ Years	Good	Dense thorn and dogwood vegetation within 5m of the boundary. 1st row of established hawthorn 3m from the boundary with 1.5m spacings. With semi-mature silver birch and semi-mature willow, and alder, approx. 15m from the boundary with young crack willow as understory. Failed stems and standing deadwood in places, Typical characteristics for the embankment throughout the groups	-	B2	-	-

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
G054	Mixed woodland (Mixed woodland) Poplar x6 (<i>Populus sp.</i>) Crack willow (<i>Salix fragilis</i>)	15#	7	250#	See Plan				0	Semi Mature	20+ Years	Good	Impenetrable vegetation prevented detailed inspection of the group. Semi-mature poplar and willow within a 10m area from the roadside. Occasional Rowan. Failed birch with dogwood and dog rose understory. No observation of semi-mature trees within 6 - 8m of the site boundary	-	B2	-	-
G055#	Common hawthorn (<i>Crataegus monogyna</i>) Field maple (<i>Acer campestre</i>) Common ash (<i>Fraxinus excelsior</i>) Mixed woodland (Mixed woodland)	15#	1	200	See Plan				0	Semi Mature	20+ Years	Good	Hawthorn is the most dominant species within this section. Unable to gather data close to the boundary fence due to the thorny and scrub layer.	-	B	-	-
G056#	Crack willow (<i>Salix fragilis</i>) Black hybrid poplar (<i>Populus x canadensis</i>) Mixed woodland (Mixed woodland)	15#	1	200	See Plan				0	Semi Mature	20+ Years	Good	Dense thorny scrub within 4m from the boundary. Semi-mature poplar 6m north of the boundary established in rows, with hawthorn, birch and the occasional young crack willow as understory	-	B2	-	-

Tree No.	Species	Height (m)	No. of Stems	Stem Dia. @ 1.5m (mm)	Crown Spreads (m)				Height of Crown Clearance (m)	Age Class	SLE	Overall Condition	Comments	Management	Category	RPA Radius (m)	RPA Area (m ²)
					N	E	S	W									
G057#	Mixed hedge (Mixed hedge) Field maple (<i>Acer campestre</i>) Common hawthorn (<i>Crataegus monogyna</i>)	15#	1	200	See Plan				0	Semi Mature	20+ Years	Good	Planted as a hedge with no management, now lapsed and established as semi-mature specimens.	-	B2	-	-
G058#	Black hybrid poplar (<i>Populus x canadensis</i>) Mixed woodland (Mixed woodland)	15#	1	200	See Plan				0	Semi Mature	20+ Years	Good	Matured woodland plantation strip with semi-mature poplar which are well established.	-	B2	-	-

Appendix 2: Site Photographs



Plate 1: T001 from the north



Plate 2: G004 from the south west



Plate 3: G006 from the north east



Plate 4: H007 from the west



Plate 5: H009, H010 and H011 from the east



Plate 6: T012 from the north east



Plate 7: T015 – T026 6th October by LE



Plate 8: G047 6th of October by LE



Plate 9: T20 – T40 6th October by LE



Plate 10: G048 and G049 6th of October by LE

Appendix 3: Figures

GENERAL NOTES

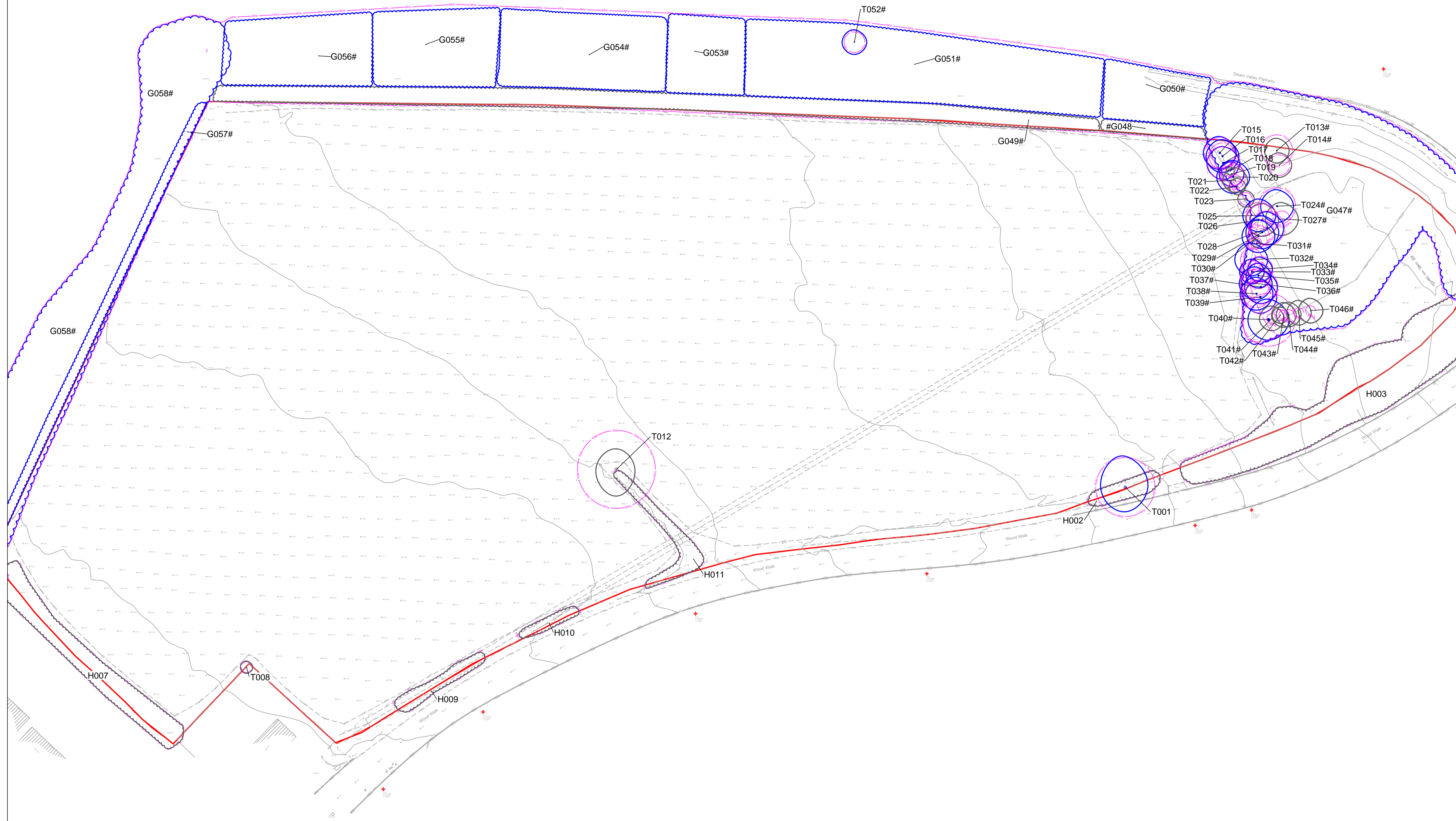
- Drawing for Planning purposes only
- Refer to arboricultural report produced by Cura Terrae (Formerly Ecus Ltd) titled 'Wood Walk Hoyland' – BS 5837:2012 Arboricultural Report and Method Statement'.
- Based on topographic survey provided by the client.
- Check all dimensions on site.
- Do not scale from this drawing.
- Report any discrepancies and omissions to Cura Terrae Ltd.
- This drawing is Copyright.

3RD-PARTY INFORMATION

NB This drawing includes information provided by independent surveyors and / or consultants, to whom all queries shall be made. Cura Terrae Ltd can accept no liability for its context or accuracy.

KEY

- Stem Location
- Tree Categories (BS 5837:2012)
 - Category A Trees
 - Category B Trees
 - Category C Trees
 - Category U Trees
- Root Protection Area (RPA)



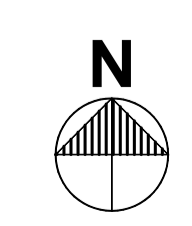
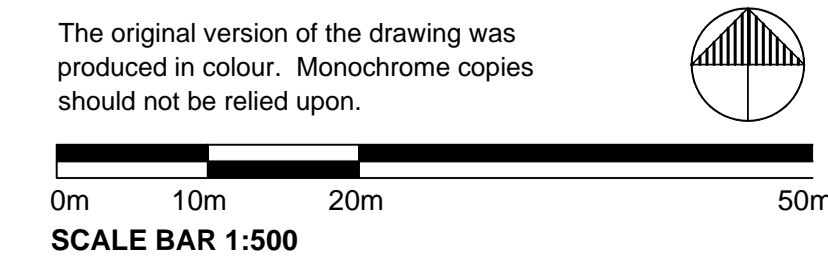
REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT
A	Oct. 25	LE	NA	Updated proposal with retaining wall

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Job
21805 - Wood Walk Hoyland

Title
Figure 3 - Tree Constraints Plan

By	Date	Scale @ A1	Drq. no.
DF	Aug 2023	1:500	21805-ARB-01



GENERAL NOTES

- Refer to arboricultural report produced by Cura Terrae Ltd (Formerly Ecus Ltd) titled 'Wood Walk Hoyland' – BS 5837:2012 Arboricultural Report and Method Statement'.
- Based on topographic survey provided by the client.
- Building layout and masterplan provided by the client.
- Refer to Engineer's details for level and drainage information.
- Check all dimensions on site.
- Do not scale from this drawing.
- Report any discrepancies and omissions to Cura Terrae Ltd
- This drawing is Copyright.

3RD-PARTY INFORMATION
 NB This drawing includes information provided by independent surveyors and / or consultants, to whom all queries shall be made. Cura Terrae Ltd can accept no liability for its context or accuracy.

KEY

- Stem Location
- Tree Categories (BS 5837:2012)
 - Category A Trees
 - Category B Trees
 - Category C Trees
 - Tree to be Removed
- Root Protection Area (RPA)

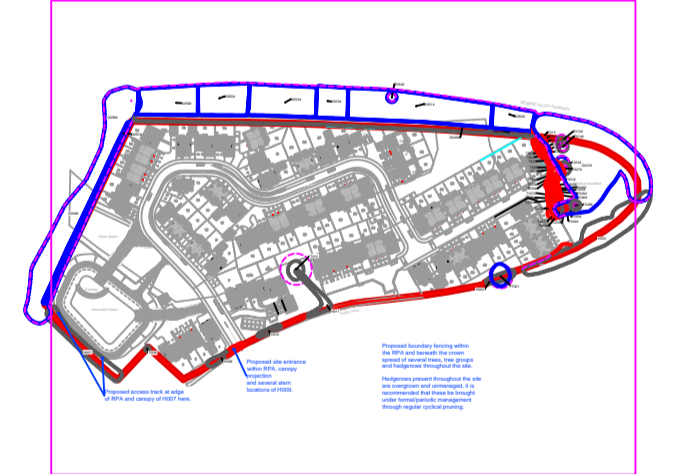


Proposed access track at edge of RPA and canopy of H007 here.

Proposed site entrance within RPA, canopy projection and several stem locations of H009.

Proposed boundary fencing within the RPA and beneath the crown spread of several trees, tree groups and hedgerows throughout the site.

Hedgerows present throughout the site are overgrown and unmanaged, it is recommended that these be brought under formal/periodic management through regular cyclical pruning.



C	29.10.25	LE	NA	Updated proposal drawing
B	Oct. 25	LE	NA	Updated proposal with retaining wall
A	15/11/23	DF	ECUS	Updated Layout
REV	DATE	DRAWN BY	CHECKED BY	REVISION COMMENT

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Job
21805 - Wood Walk Hoyland

Title
Figure 4 - Tree Impacts Plan

The original version of the drawing was produced in colour. Monochrome copies should not be relied upon.

SCALE BAR 1:500

By **DF** Date **Aug 2023** Scale @ **A1** Drg. no. **21805-ARB-02**



General

This Arboricultural Method Statement (AMS) details the specific measures to be adopted to ensure that the retained trees are suitably protected for the duration of the proposed development.

No equipment, machinery or materials shall be brought onto the site in connection with the development until this AMS has been submitted to and approved in writing by the Local Planning Authority.

Sequence of Events

For the purpose of protecting the retained trees, the development works on site should be completed in line with the following sequence of events:

- Pre-commencement site meeting
- Tree works
- Installation of tree protection measures
- Construction operations
- Removal of tree protection measures

Pre-Commencement Site Meeting

A pre-commencement site meeting should take place prior to any works being started, to finalise plans for the layout of the tree protection measures and to ensure that all potential issues are adequately considered.

The site developer and the project arboriculturist should be in attendance for the meeting. It may also be a requirement for the LPA tree officer to attend and so prior notification of the meeting should be provided to the LPA.

Tree Works

Prior to the commencement of any development operations and the storage of plant, machinery and materials on site, any required tree works should be carried out. The trees to be removed and any pruning works that are required to facilitate the development are detailed in the Tree Survey Schedule at Appendix 1 of the associated arboricultural report.

All tree works should be carried out by a suitably qualified and insured arboricultural contractor and in accordance with the recommendations of BS 3998:2010 Tree work – Recommendations.

It is recommended that trees should be checked in advance of any works by a suitably qualified ecologist to ensure there is no disturbance to nesting birds or roosting bats.

Tree Protection Fencing

Prior to the commencement of any development operations and the storage of plant, machinery and materials on site the tree protective fencing should be located as shown. Where possible this fencing should exclude all site activities from the RPA of retained trees, creating a sacrosanct Construction Exclusion Zone (CEZ).

It should be confirmed by the project arboriculturist that the fencing has been correctly set out on site, prior to the commencement of any other operations.

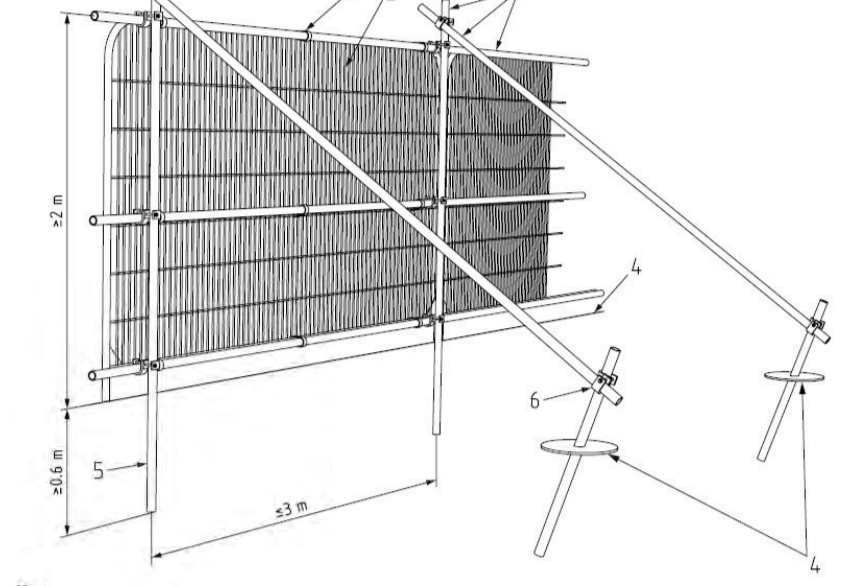
The default specification for tree protection fencing is shown here. However, where the site circumstances and associated risk of damaging incursion into the RPA do not necessitate the default level of protection, an alternative specification should be prepared by the project arboriculturist and, where relevant, agreed with the local planning authority.

An example of an alternative specification is 2 m tall welded mesh panels on rubber or concrete feet or attached to driven scaffolding poles. In such cases, the fence panels should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The distance between the fence couplers should be at least 1 m and should be uniform throughout the fence. The panels should be supported on the inner side by stabilizer struts where necessary, which should be attached to a base plate secured with ground pins or mounted on a block tray.

All-weather notices should be attached to the fencing to indicate that operations are not permitted within the CEZ, with words such as "CONSTRUCTION EXCLUSION ZONE – NO ACCESS".

Once the tree protection fencing has been installed it should not be altered or removed without prior consultation with the project arboriculturist. If the tree protection fencing needs to be re-positioned to allow for development operations to continue, this must be carried out under the supervision of the project arboriculturist and with prior consent from the LPA.

The tree protective fencing must remain in place until all construction operations on site have been completed and all plant and machinery has been removed.



Installation of Utilities and Services

Where possible all above and below ground utilities and services are to be directed away from the retained trees. Above ground services should be routed away from tree canopies, allowing sufficient space to allow for likely future root growth. Below ground services should be grouped together and routed away from the RPA of retained trees.

Any below ground utilities or services that must be routed through the RPA should be installed in accordance with BS 5837:2012 clause 7.7.2 and NUJG 10. Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees.

Management of Exposed / Damaged Roots

Provided that works in close proximity to retained trees are carried out in line with the specifications detailed within this report the potential for damage to significant roots is low. However, on occasion approved works that are close to or within the RPA of retained trees can result in accidental root damage or roots becoming exposed.

If any exposed roots are smaller than 25 mm diameter they can be pruned back if required, however roots occurring in clumps or of 25 mm diameter and over should be retained where possible and worked around.

Where the severance of larger roots is unavoidable, the advice of the project arboriculturist must be sought, as such roots might be essential to the tree's health and stability. It may be determined that the design layout must be slightly altered to allow for the retention and adequate protection of significant roots.

Roots that are heavily damaged or severed during approved works may need to be pruned back using a suitable sharp tool, such as secateurs or a handsaw. The cut must be made cleanly, leaving the smallest surface area possible, and beyond any obvious damage, towards the tree that the root is likely to have come from. If it is not clear which direction the root has grown from, the root should be pruned back to both sides of the damage/severance.

A health and safety assessment should be carried out or a regular monitoring regime put in place for trees that have incurred damage to roots in close proximity to their stems or where the damaged roots are 100 mm in diameter or greater. Such damage could lead to instability or a decline in health and condition.

Exposed roots or roots that have been pruned should be immediately recovered with earth to prevent desiccation. If this is not possible they should be wrapped in hessian sheets which are dry in winter, wet in summer. These should be removed prior to backfilling.

Landscaping Works Including Installation of Fencing

Where soft landscaping is proposed within the RPA of retained trees, excavations should be kept to the minimum required to provide adequate conditions for the establishment of new shrubs and trees. Excavations should be carried out carefully and by hand, avoiding the severance of any roots larger than 25mm diameter.

Ground levels within the RPA should generally not be altered to avoid the potential for damage to tree roots. Roots are considered to be primarily within the top 0.6 m of the soil. Any excavations have the potential to damage or remove part of the root system and could affect the vigour or stability of the tree. Conversely, increasing the ground level can compact the soil, potentially suffocating the roots and causing them to die off. If minor level changes are unavoidable as part of an approved landscaping scheme, the advice of the project arboriculturist should be sought.

Where fencing is to be installed within the RPA of retained trees this must consist of posts and panels or rails only, trenched footings are not acceptable within the RPA. The holes for posts should be kept to the minimum depth required and excavated using hand tools only.

Fence posts should be erected a minimum of 1.0 m from tree stems. The post locations may need adjusting if significant roots are uncovered, so that the roots remain intact. If wet concrete is to be used, post holes should be lined with an impermeable membrane to prevent soil contamination close to tree roots.

The fencing alignment should allow for a minimum distance of 0.5 m between any tree stem and the fence, providing sufficient room for future growth and minimising the risk of potential conflicts between the fence structure and tree stems.

Any landscaping works that are within the RPA of retained trees or will require the tree protection fencing to be temporarily breached should be carried out in consultation with the project arboriculturist.

Additional Precautions

Consideration should be given to site operations outside of the CEZ that could indirectly impact the retained trees, including the provision of adequate space for site cabins, welfare facilities and other temporary structures.

Site operations should take sufficient account of wide or tall loads in order that they can operate without coming into contact with retained trees. The movement of plant in proximity to trees should be supervised by a banksman, to ensure adequate clearance from trees is maintained at all times.

Fires on sites should generally be avoided. Where fires are unavoidable, they should not be lit in a position where heat could affect the foliage or branches of retained trees. The potential size of a fire and the wind direction should be taken into account when determining its location, and it should be attended at all times.

Any materials that could contaminate the ground around tree roots, such as fuels, oils or cement, should be stored and handled well away from the outer edge of the RPA.

Arboricultural Site Supervision

Site monitoring and supervision by the project arboriculturist is likely to be required on a regular basis throughout the development. The specific site operations in close proximity of retained trees that will require supervision include:

- Tree removal and tree pruning works
- Installation of tree protection measures
- Installation of any service runs in proximity to retained trees

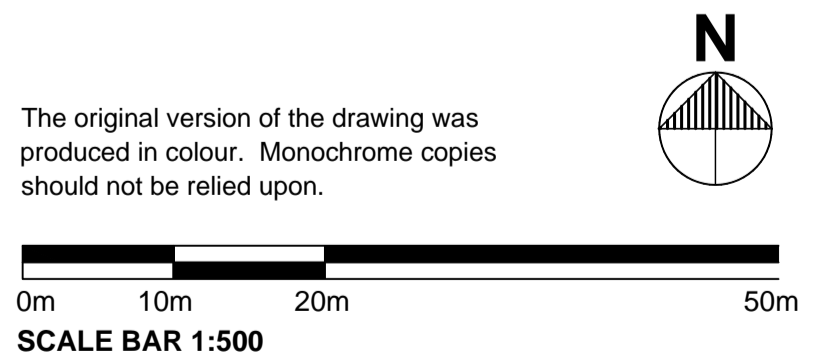
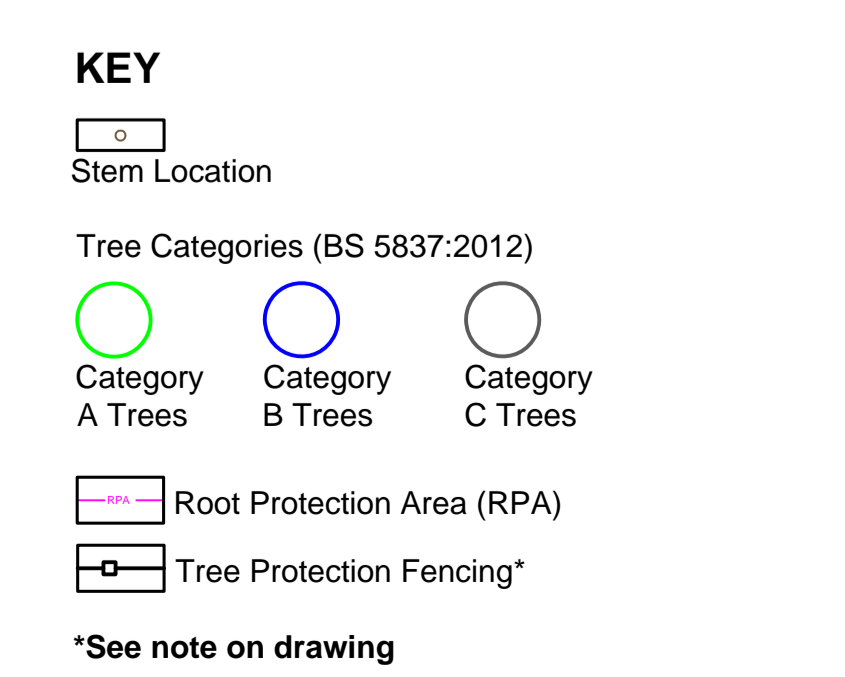
A minimum of one week's notice should be given to the supervising arboriculturist where possible before the start of any works within the RPA of retained trees, to allow the site visit to be scheduled.

All site visits will be recorded with the date and time along with any findings or comments relating to the tree protection measures and the specific operations supervised. These can be made available to the LPA tree officer on request.



GENERAL NOTES

- Refer to arboricultural report produced by Cura Terrae Ltd (Formerly Ecus Ltd) titled 'Wood Walk Hoyland' – BS 5837:2012 Arboricultural Report and Method Statement.
- Based on topographic survey provided by the client.
- Building layout and masterplan provided by the client.
- Refer to Engineer's details for level and drainage information.
- Check all dimensions on site.
- Do not scale from this drawing.
- Report any discrepancies and omissions to Cura Terrae Ltd
- This drawing is Copyright.



C	29.10.25	LE	NA	Updated proposal drawing
B	Oct 25	LE	NA	Updated proposal with retaining wall
A	15/11/23	DF	ECUS	Updated Layout
REV	DATE	DRAWN	CHECKED	REVISION COMMENT
		BY	BY	

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Job
21805 - Wood Walk Hoyland

Title
Figure 5 - Arboricultural Method Statement

By	Date	Scale @ A0	Drw. no.
DF	Aug 2023	1:500	21805-ARB-03

Appendix 4: Suffolk County Council Ash Die Back Canopy Description



The Issue

Identifying the symptoms of Ash Dieback in large trees can be difficult, so a system was needed to enable easy description of the current state of an Ash Tree. Tree Canopy assessment has been widely used since the late 1980's across Europe based on work produced in Switzerland in 1986. In 1990 the Forestry Commission produced a book – '[Assessment of Tree Condition](#)' to enable a standard system for describing the condition of a tree based on the percentage of existing canopy remaining.

Using this methodology Suffolk County Council undertook to describe the health of an Ash in Suffolk.

The steps undertaken

During the summer of 2013/14 Suffolk County Council assessed and photographed Ash across the county. They determined that there were 4 useful categories to describe Ash canopies. The categories chosen were

- 100% full canopy,
- 75% canopy,
- 50% canopy
- and 25% canopy.

These are represented photographically in the pictures at the end of this Case Study.

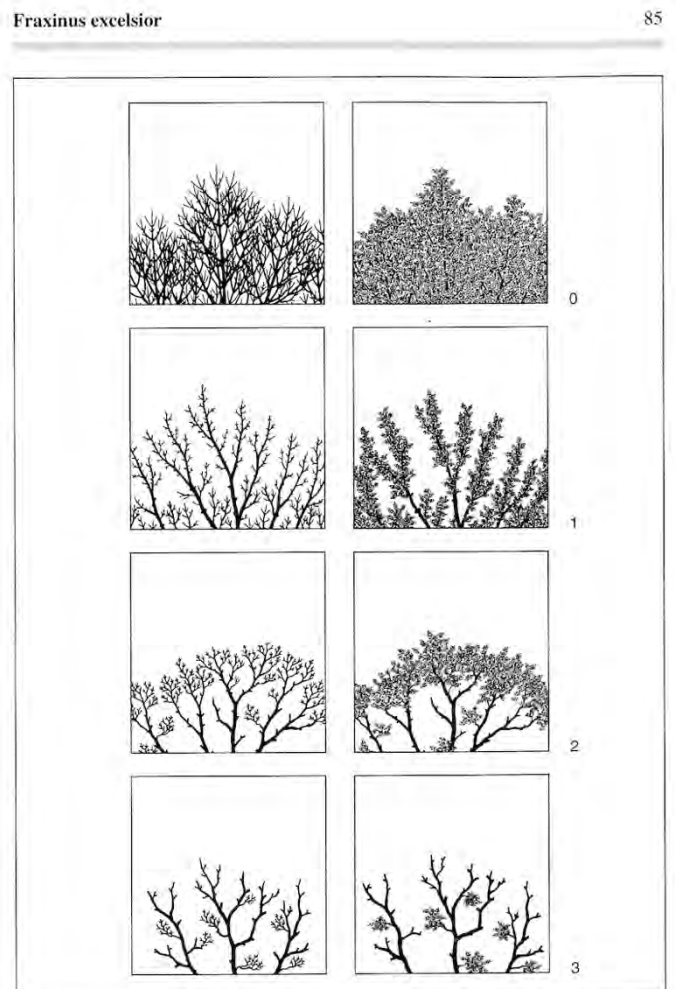
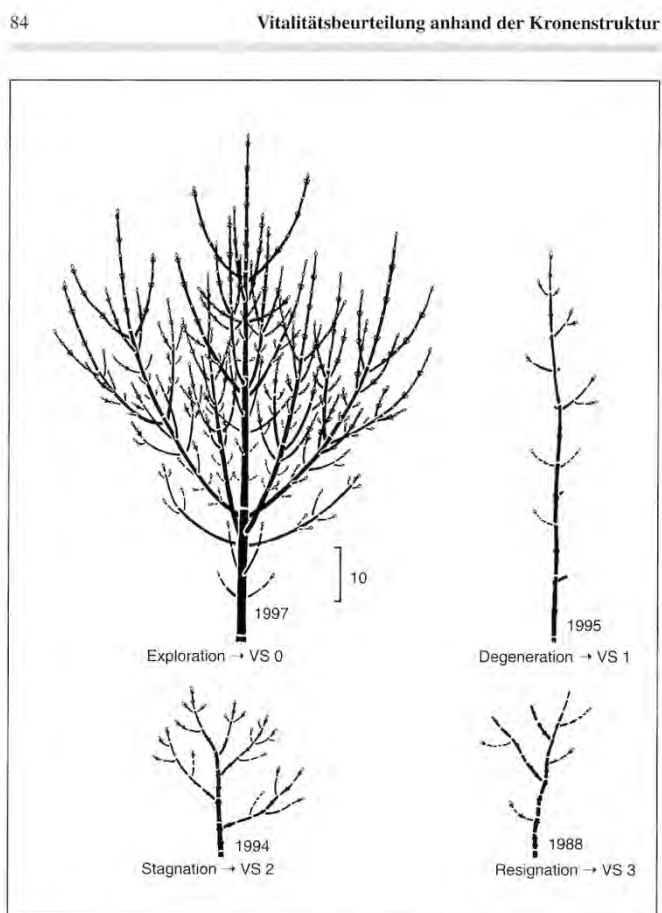
These 4 classes fit with work undertaken in Germany by Professor Andreas Roloff who has been describing the state of vitality of European Trees. He also uses 4 categories – described as

- Vitality Class 0: Healthy vigorous trees showing treetop shoots in the exploration phase: both the main axes and part of the lateral twigs consist of long-shoots. For this reason, a regular net-like branching pattern is developed, which reaches deep into the interior of the crown. The crowns are equally closed and domed, and do not show any greater gap unless a stronger intervention has occurred, such as pruning measures, because such a gap is closed quickly by the intensive ramification. In summer, a dense foliage arises without any greater gap.
- Vitality Class 1: Weakened trees show treetop shoots in the degeneration phase. Thus, spears/"fox tails" are formed, rising above the canopy. The leaves on these spears are dense and grow all around them (at the top of the lateral short-shoots or shortshoot chains). The crowns make a frazzled impression on the outside, and have a fastigiated appearance, because the airspace between the spears is not completely filled by leaves and twigs, and the crown has a spiky outline. Inside the crown, the branching pattern, and hence the foliage, is quite dense. In this vitality class, straight percurrent main axes of the treetop branches are still dominant, but the crowns no longer look as intact as in class 0 because of the spears shooting out of the canopy.
- Vitality Class 2: In obviously less vigorous trees, the treetop shoots begin to build short-shoots in the stagnation phase. The leafless state could be designated as the claw stage, because the short-shoot chains in the outside of the crowns grow longer, are predominant, and stretch claw-like to the light. These short-shoot chains, growing too long, break off in summer in thunderstorms and heavy rains, and strew the forest floor in

declining stands. Under normal circumstances, trees get rid of parts of their unimportant twigs in the inner and lower crown parts in this way. However, if the treetop shoots themselves are declining, the self-pruning of twigs progresses into the outskirts of the crown, and the crowns become thin from the inside outwards. The cause for this occurrence is not premature leaf fall, but broken short-shoot chains, a lack of shoots, and dead buds and twigs. The branching pattern shows a bushy and lumpy accumulation in the periphery of the crown. This accumulation causes summer and winter bushy crown structures and greater gaps. The crown periphery still has hardly any straight percurrent branches.

- Vitality class 3: In considerably damaged or declining trees of the crowns finally fall apart by the breaking off of larger branches and the dieback of whole crown parts. The tree seems to consist only of more or less surplus sub-crowns, dispersed randomly in the airspace and forming whip-like structures. The treetop is often dying back or is already dead, because the treetop shoots grew in the retraction phase.

These 4 vitality classes are shown below for Ash.



The work in Germany and Suffolk complements each other and establishes the ability to be able to assign an ash tree to 1 of 4 categories, which describe the trees current health or vitality. This is a simple and useful method for describing the current state of an Ash's health.

The Outcome

Using this 4 category framework, allows a tree to be assigned to a category, showing its current state of health, enabling data on the tree to be collected. The suggestion going forward is that these 4 classes are used as described as:

Ash Health Class 1 – 100 – 75% Canopy (Vitality Class 0)

Ash Health Class 2 – 75% -50% Canopy (Vitality Class 1)

Ash Health Class 3 – 50% - 25% Canopy (Vitality Class 2)

Ash Health Class 4 – 25% - 0% Canopy (Vitality Class 3)

Figure 1: Photos of Dieback of ash trees



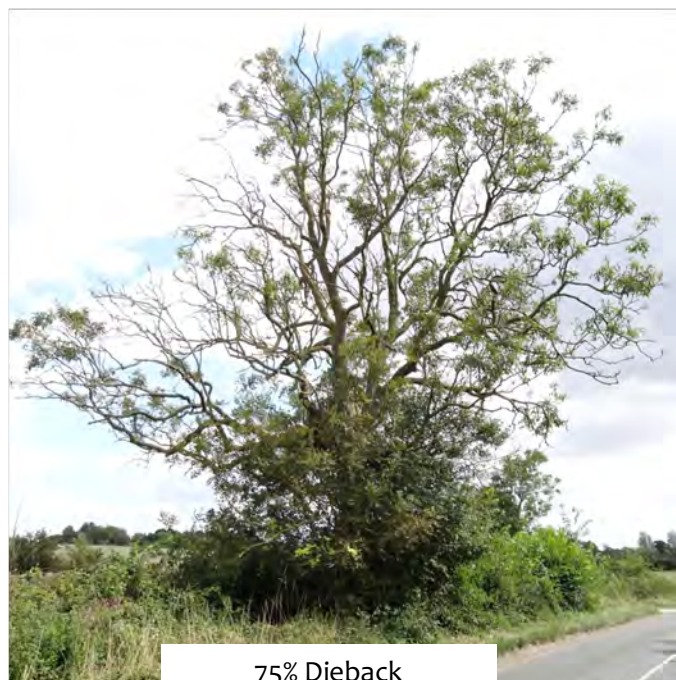
0% Dieback - Healthy Crown



25% Dieback



50% Dieback



75% Dieback