



Arboricultural Impact Assessment to BS5837:2012

Kirklees Council

**Meltham Greenway Phase 3A,
Huddersfield
West Yorkshire
HD4 7FB**

20 March 2025

Alan Thompson FdSc (Arb) MArborA

Table of Contents

If this report has been released electronically the appendices referred to herein can be found in the annexed zip folder/s as .pdf files. If this report has been released in hard copy the appendices will be bound into the back of this report. Plans are annexed separately as A0, A1, A2 or A3 as appropriate.

Introduction	3
Executive Summary	4
General Information.....	5
Tree Survey.....	7
Arboricultural Impact Assessment.....	8
Tree Works	11
Appendix 1: Arboricultural Impact Assessment Plan.....	14
Appendix 2: Tree Survey Schedule	18
Appendix 2: Contact Details	43
Document Production Record	44

Introduction

Arbtech Consulting Limited (Arbtech) received written instruction on 07 October 2024 from Kirklees Council to attend Meltham Greenway Phase 3A, Huddersfield, HD4 7FB; grid reference, SE116122 (site) to undertake an arboricultural survey to BS5837:2012 guidance to assess trees, hedges and major shrub groups growing on and within influencing distance of the site and to produce a Schedule of trees, Tree Constraints Plan, and Arboricultural Impact Assessment.

Site location

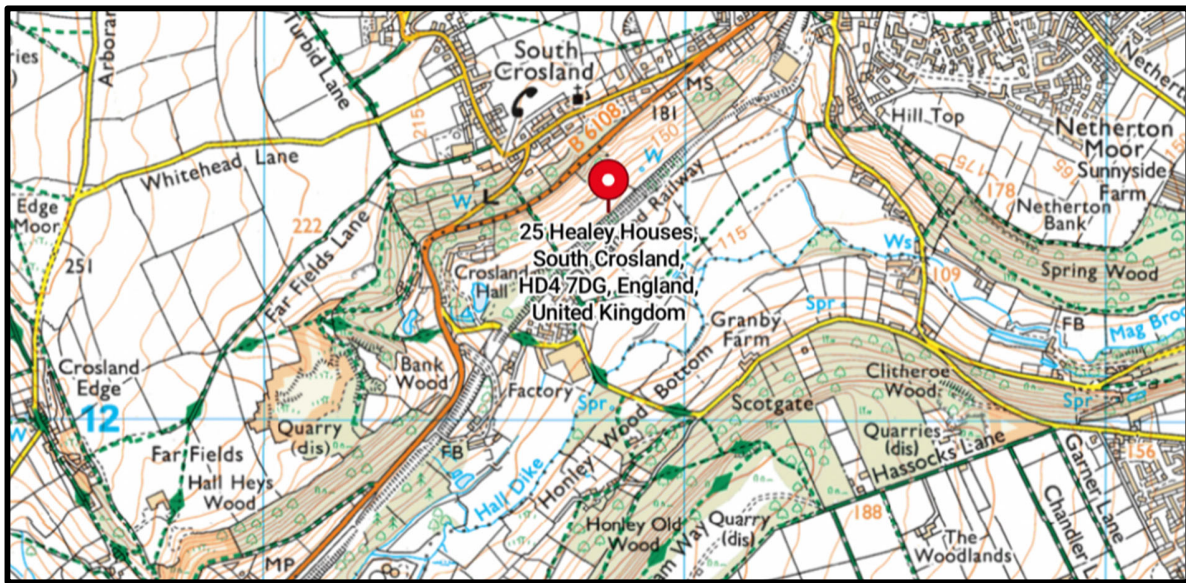


Figure 1: OS Map (Bing Maps)



Figure 2: Aerial Image of site with approximate blue line survey boundary (Bing Maps)

Executive Summary

This report describes the extent and effect of the proposed development at the site on individual trees and groups of trees within and adjacent to the site.

Trees within the site were surveyed; using a methodology guided by British Standard 5837:2012 'Trees in relation to design, demolition and construction – Recommendations' ("BS5837").

Subsequently, this report has been produced, balancing the layout of the proposed development against the competing needs of trees. This report comprises all of the requisite elements of an arboricultural implications assessment, method statement and supporting plans.

Checklist for Submission to Local Planning Authority

Tree survey	☒
Tree constraints plan	☒
Arboricultural impact assessment	☒

This report and its appendices follow precisely the strategy for arboricultural appraisal intended to provide local planning authorities with evidence that trees have been properly considered throughout the development process.

General Information

Client: Kirklees Council

Site: Meltham Greenway Phase 3A, Huddersfield, West Yorkshire, HD4 7FB

Brief proposal description: A greenway is proposed to run along an obsolete railway track and its embankments. The greenway is to be suitable for pedestrians and cyclists.

Site description: The site comprises a linear strip of broadleaved woodland on agricultural land, running east to west upon a former railway line. It is located off Crosland Factory Lane to the southwest of Huddersfield. The general survey area is a woodland strip with a raised mound to the centre and sloped embankments either side, resulting in mixed levels. The majority of the ground is soil, with occasional aggregate infill in areas and localised waterlogged sections. The site is bounded by fields to the north and south, a residential estate to the east and southwest, and Crosland Factory Lane to the west.

Table 1: Documents referred to.

Document	Reference No.
Survey Base Plan	2200-501-520
Proposed layout drawing	HD/ADV-207/CON/1
Landscape master plan drawing	N/A
LPA pre-app comments	N/A
British Standard 5837:2012	"BS5837"
Arboricultural Impact Assessment	Arbtech AIA 01

Proposal

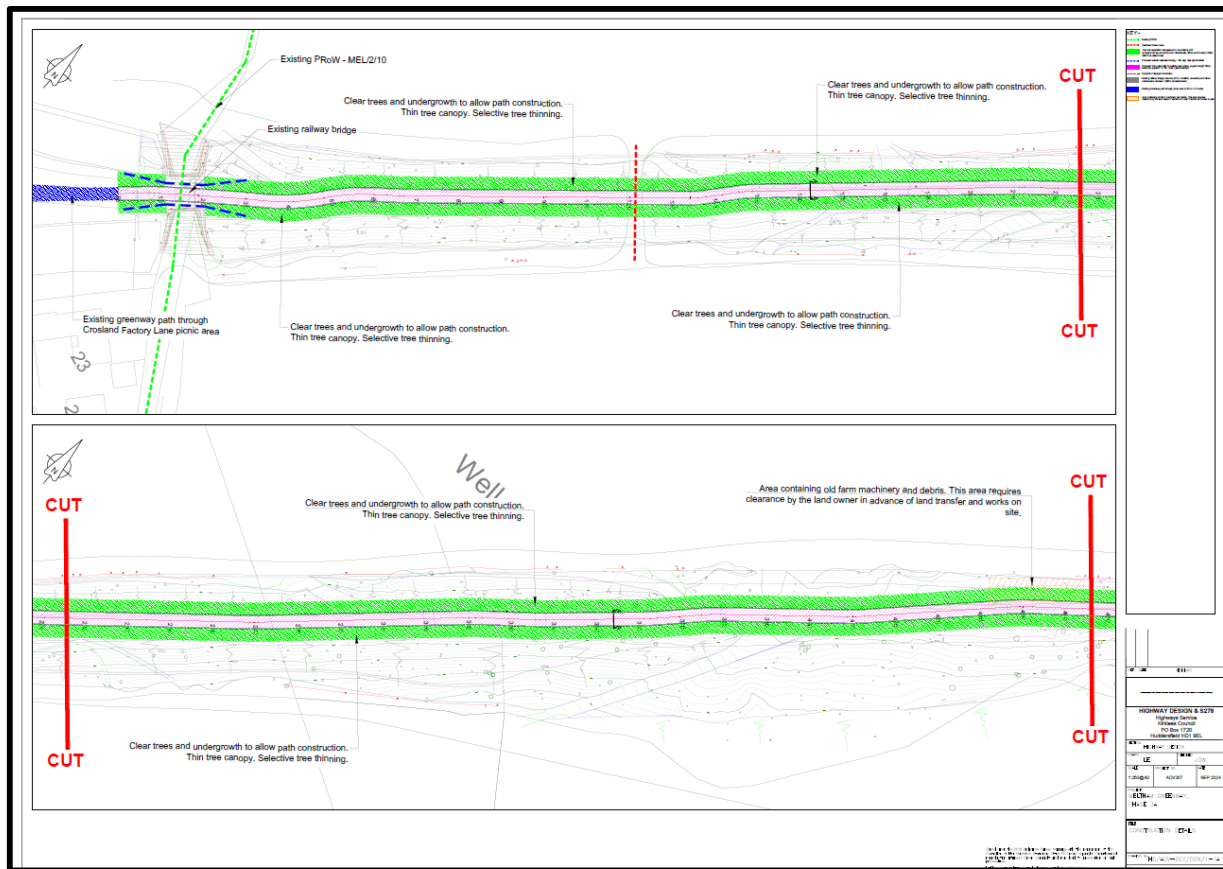


Figure 1.

Tree Survey

Survey: An arboricultural survey to BS5837 of all trees within impacting distance of the site was undertaken by Tom Baron on 17th and 24th October 2024.

A total of 40 No. individual trees, 6 No. groups of trees and 3 No. woodlands were surveyed, together with 5 No. individuals within G04 (G04/01 to G04/05), 45 No. individuals within W01 (W01/01 to W01/45) and 39 No. individuals within W02 (W02/01 to W02/39). Details for each of the trees surveyed are provided in the Schedule of Trees (see Appendix 2).

Table 2: Documents upon which this tree survey has been based

Document	Originator	Reference Number	Title
Survey base drawing	Survey & Engineering Projects	S25183-T_01	Topographical Survey

Limitations: The survey was made at ground level using visual observation only. Detailed examinations, such as climbing inspections and decay detection equipment were not employed, though may form part of the survey's management recommendations. Measurements were taken using specialist tapes, laser and GPS devices. Where this was not possible, measurements are estimated.

Scope: Pre-development tree surveys make arboricultural management recommendations based exclusively upon the individual tree or group of trees condition relative to their present context (*i.e. not in relation to the proposed development*).

Legal Status: No statutory protection check has been performed. BS5837 does not draw any distinction between trees subject to statutory protection, such as a Tree Preservation Order ("TPO"), and those trees without. This is principally because a detailed planning consent overrides any TPO protection. Consequently, we do not seek to offer any comparison between or infer any difference in the quality or importance of TPO trees and other trees.

* For more information on the surveyed trees please see Arbtech Consulting Ltd, Tree Survey Schedule (Appendix 1), Tree Survey Report and Tree Constraints Plan.

Arboricultural Impact Assessment

Table 3: Documents upon which this assessment has been based

Document	Originator	Reference Number	Title
Survey base drawing	Mantra Services Ltd	2200-501-520	Topographical Survey
Proposals	Highway Design & S278	HD/ADV-207/CON/1	Proposed Site Plan

There are a number of issues that may need to be addressed in an arboricultural impact assessment between the trees and the proposed development, these are as follows:

- The effect and extent of the proposed development within the root protection areas (RPAs) of retained trees;
- The potential conflicts of the proposed development with canopies of retained trees; and
- The likelihood of any future remedial works to retained trees beyond which would have been scheduled as a part of usual management.

The site is an obsolete railway track and its embankments. There is deciduous woodland on both embankments all of which is part of a TPO group. The whole site has been part of farmland used for grazing and sheltering. The track bed is partially in place stone/clinker and partially excavated and largely clear of trees.

The greenway is proposed to run along the old track alignment to be suitable for pedestrians and cyclists. The proposed greenway will require a 150mm excavation to install a suitable sub-base construction for the proposal, as shown in figure 2 below.

It is expected that the 150mm depth of excavation will be mostly restricted to the existing stone/clinker with only minor excavations required into the soil below the stone/clinker.

Due to the uneven topography of the proposed greenway route, some areas will require levels to be raised so that a useable finished level for the greenway can be achieved. All level changes are proposed to be carried out under arboricultural supervision

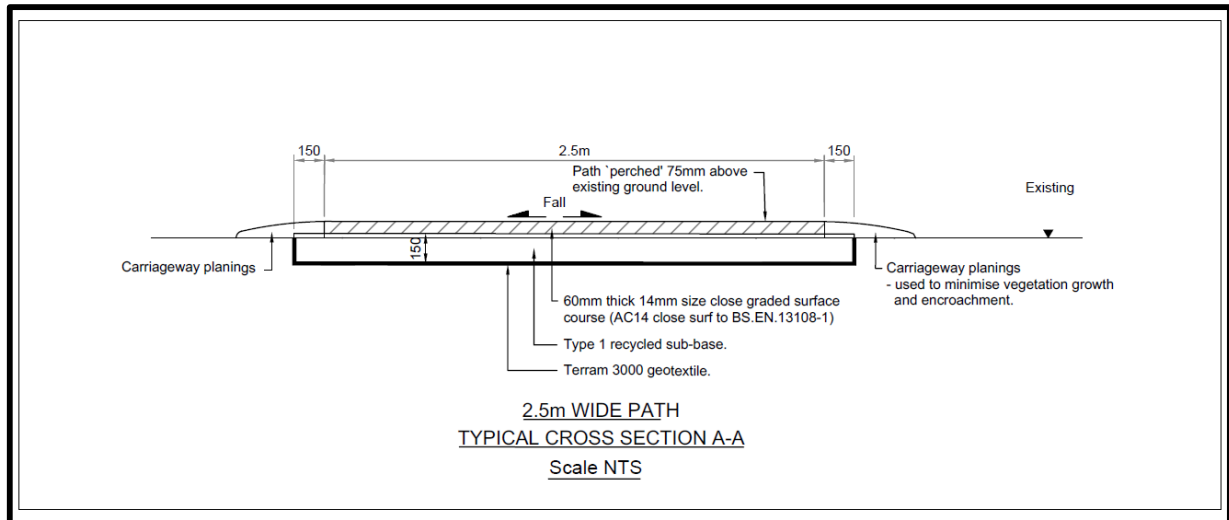


Figure 2. Cross section of proposed construction specification

Supervised excavation methodology

Any excavation required for the 150mm greenway sub-base within RPAs will be carried out under direct on-site arboricultural supervision.

Any roots found with a diameter of less than 25mm shall be cleanly severed by the arboricultural consultant. Any roots of 25mm and above shall be excavated around without damaging them; the arboricultural consultant shall decide if it's feasible or necessary to retain the root, if not it shall be severed.

Trees to be removed

A breakdown of all tree removals and pruning works can be seen in Table 9: Summary of Tree Works

Table 5: Number of individual trees to be removed.

U	A	B	C
14	0	1	17

Table 6: Number of groups to be removed. () Represents partial removal of a group.

U	A	B	C
0	0	0	0 (1)

Mitigation tree planting will form part of the landscape proposal for the project.

Tree Works

For reasons of public safety, all tree works referred to herein must be carried out prior to any site personnel commencing works or any building materials being delivered.

Table 9 Summary of Tree Works

No.	Species	Works	Category
T11	Goat wilow	Fell to ground level; remove stump	C1
T12	Hawthorn	Fell to ground level; remove stump	C1
T13	Oak	Fell to ground level; remove stump	C1
T23	Ash	Fell to ground level; remove stump	C1
T28	Silver birch	Fell to ground level; remove stump	C1
T30	Ash	Fell to ground level; remove stump	C1
T32	Hawthorn	Fell to ground level; remove stump	C1
T38	Oak	Fell to ground level; remove stump	C1
W01-16	Silver birch	Fell to ground level; remove stump	C1
W01-17	Goat wilow	Fell to ground level; remove stump	U
W01-18	Silver birch	Fell to ground level; remove stump	U
W01-19	Silver birch	Fell to ground level; remove stump	C1
W01-20	Silver birch	Fell to ground level; remove stump	C1
W01-21	Silver birch	Fell to ground level; remove stump	U
W01-22	Silver birch	Fell to ground level; remove stump	U
W01-23	Silver birch	Fell to ground level; remove stump	C1
W01-24	Silver birch	Fell to ground level; remove stump	C1
W01-25	Silver birch	Fell to ground level; remove stump	C1
W01-26	Silver birch	Fell to ground level; remove stump	U
W01-27	Silver birch	Fell to ground level; remove stump	C1
W01-28	Silver birch	Fell to ground level; remove stump	C1
W01-33	Goat wilow	Fell to ground level; remove stump	C1

No.	Species	Works	Category
W01-34	Sycamore	Fell to ground level; remove stump	U
W01-44	Goat wilow	Fell to ground level; remove stump	U
W02-04	Silver birch	Fell to ground level; remove stump	B1
W02-06	Silver birch	Fell to ground level; remove stump	C1
W02-07	Silver birch	Fell to ground level; remove stump	C1
W02-08	Silver birch	Fell to ground level; remove stump	C1
W02-10	Oak	Fell to ground level; remove stump	U
W02-11	Hawthorn	Fell to ground level; remove stump	U
W02-31	Goat wilow	Fell to ground level; remove stump	U
W02-34	Silver birch	Fell to ground level; remove stump	C1
G06	Various	Remove section of G06 from green hatched works area on northern side of the proposed greenway	C2
W01	Various	Crown lift to 2.5m above proposed track to facilitate construction of proposed greenway	A2
W02	Various	Crown lift to 2.5m above proposed track to facilitate construction of proposed greenway	A2

Notes

All proposed tree works are located on the interior of the linear woodland group along the route of the proposed greenway. The proposed works will not be detrimental to the wider landscape amenity value of the woodland.

All tree work is to be undertaken in accordance with British Standard BS 3998:2010, Recommendations for tree work. All arising's are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber Lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

Tree removal

A tree should be felled in one piece only when there is no significant risk of damage to people, property or protected species (see Annex A).

Where restrictions (e.g. lack of space, buildings, other features, land ownership or use, or other trees which are to be retained) cannot be overcome, trees should be dismantled in sections.

This also applies where a tall stump is being retained but where branches are to be removed/pruned.

Extensively decayed trees can be unpredictable when they are being felled, and special precautions should therefore be taken, such as the use of a winch to guide the direction of fall.

Stump removal – stump grinding

Stump grinding should be to a minimum of 300mm deep or to extend through the base of the stump leaving the major roots disconnected if the intention is to reduce the potential for the spread of Honey fungus.

The grinding residue should be treated as arising's and removed from site.

NOTE Mechanical destruction of a stump by stump grinding is less disruptive to the site than digging out.

The hole left by stump removal, should be filled with soil or other material. The filling should be appropriate for future site usage, and for any surface treatment that is to be installed.

Where future plant growth is desired, the backfill material should be firmed in 150 mm layers by treading, avoiding excessive compaction and destruction of the soil structure.

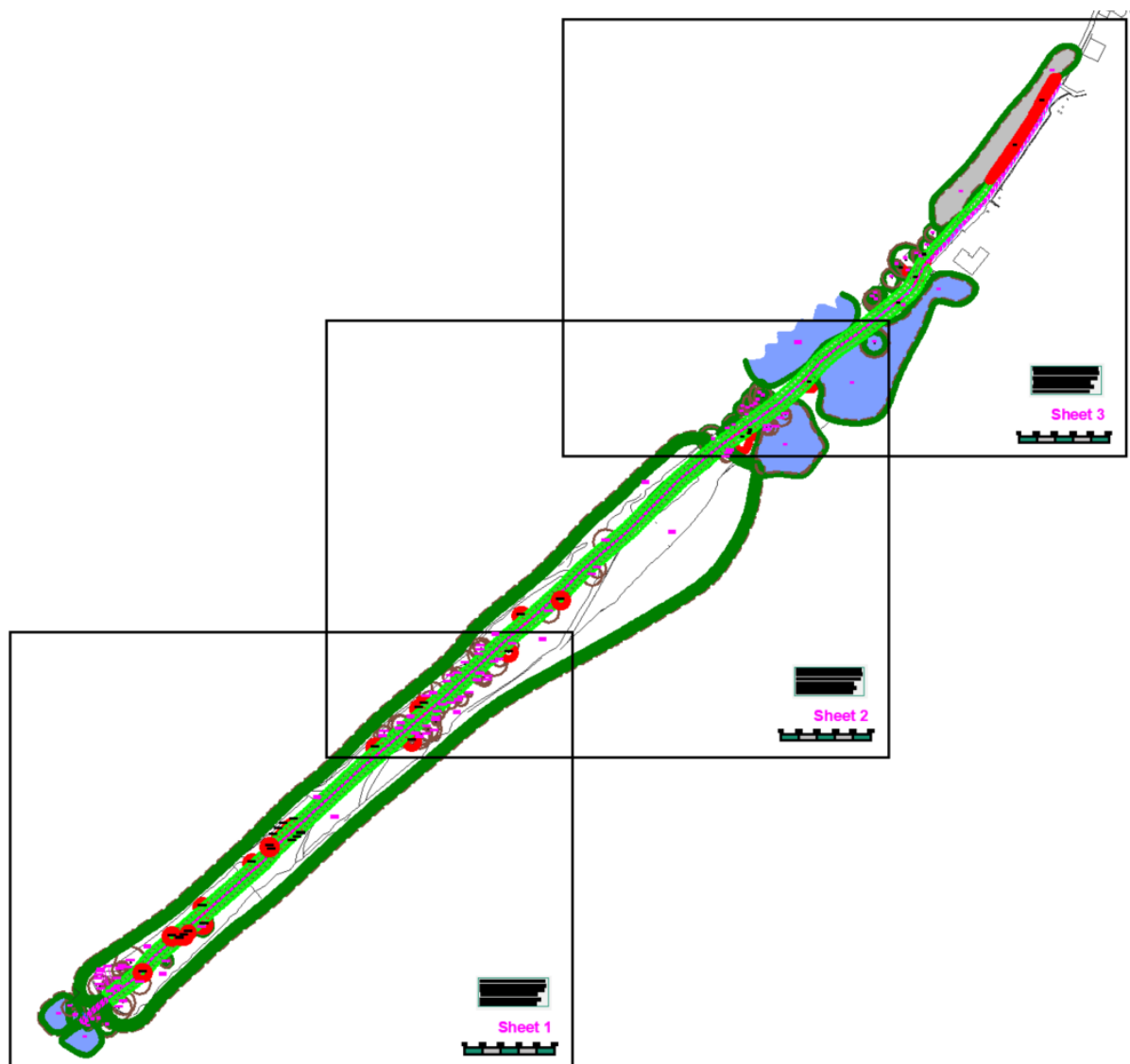
Stump removal - digging

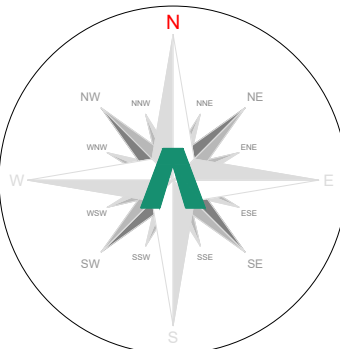
Stump removal by digging out should include disposal/utilisation of woody material (see Clause 13).

NOTE Whether done by hand or machine, digging out can cause severe disturbance of the site.

Where possible, when winching out a stump, a ground or other type of anchor should be used rather than a tree to be retained. If there is no alternative to using such a tree as an anchor, appropriate protective measures should be adopted.

Appendix 1: Arboricultural Impact Assessment Plan - Sheet-plan





Indicative only



Note: No unauthorised excavations are to be carried out within the RPAs of any retained trees. Any level changes must form part of a construction method statement & must protect the rooting environments of all retained trees.

Sheet 1



Tree Categories

Trees are categorised in accordance with the cascade chart in Table of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

Category 'U' - Trees in such condition that they cannot realistically be retained as living trees in context of the current land use for longer than 10 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.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be plotted around each of the category A, B and C trees. This is a minimum area in m² which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Tree in relation to design, demolition and construction - Recommendations'.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Arboricultural Impacts

Impacts	Nos. of tree
Trees to be removed	32
Groups / Hedges to be removed (Partial removal of groups)	0 (1)
Groups/woodlands requiring pruning works	2
Trees / Groups / Hedges to be transplanted	0

Team Work Schedule	
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No.	Tree	Works	Category
T11	Oak seedling	Fell to ground level; remove stump	C1
T12	Hawthorn	Fell to ground level; remove stump	C1
T13	Oak	Fell to ground level; remove stump	C1
T23	Ash	Fell to ground level; remove stump	C1
T26	Silver birch	Fell to ground level; remove stump	C1
T30	Ash	Fell to ground level; remove stump	C1
T32	Hawthorn	Fell to ground level; remove stump	C1
T38	Oak	Fell to ground level; remove stump	C1
W0-16	Silver birch	Fell to ground level; remove stump	U
W0-17	Oak seedling	Fell to ground level; remove stump	U
W0-18	Silver birch	Fell to ground level; remove stump	U
W0-19	Silver birch	Fell to ground level; remove stump	U
W0-20	Silver birch	Fell to ground level; remove stump	C1
W0-21	Silver birch	Fell to ground level; remove stump	U
W0-22	Silver birch	Fell to ground level; remove stump	U
W0-23	Silver birch	Fell to ground level; remove stump	U
W0-24	Silver birch	Fell to ground level; remove stump	C1
W0-25	Silver birch	Fell to ground level; remove stump	C1
W0-26	Silver birch	Fell to ground level; remove stump	U
W0-27	Silver birch	Fell to ground level; remove stump	C1
W0-28	Silver birch	Fell to ground level; remove stump	C1
T33	Oak seedling	Fell to ground level; remove stump	C1
W0-34	Sycamore	Fell to ground level; remove stump	U
W0-44	Oak seedling	Fell to ground level; remove stump	U
W0-04	Silver birch	Fell to ground level; remove stump	B1
W0-05	Silver birch	Fell to ground level; remove stump	C1
W0-07	Silver birch	Fell to ground level; remove stump	C1
W0-08	Silver birch	Fell to ground level; remove stump	C1
W0-10	Oak	Fell to ground level; remove stump	U
W0-11	Hawthorn	Fell to ground level; remove stump	U
W0-31	Oak seedling	Fell to ground level; remove stump	U
W0-34	Silver birch	Fell to ground level; remove stump	U
V05	Various	Remove all deadwood from the site neared works area as north-western side of site	A2
V06	Various	Crown thin V2 plus above proposed canopy removal	A2
W02	Various	Crown thin V2 plus above proposed canopy removal to facilitate construction of proposed	A2

All tree work is to be undertaken in accordance with British Standard BS 3998:2010 Tree work - Recommendations.
All arising's are to be removed and the site is to be left as found.
Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

No. of individual trees to be removed

U	A	B	C
14	0	1	17

No. of groups / hedges to be removed

U	A	B	C
0 (2)	0 (2)	0 (2)	0 (1)

() = Partial removal of a groups

Arboricultural Method Statement

All tree work is to be undertaken in accordance with British Standard
Please refer to Artech Consulting Ltd. Tree Schedule, Arboricultural
Method Statement and Tree Protection Plan, for full details of all
surveyed trees and how all aspects of the development may be
implemented without detriment to retained trees.



Unit 3, Well House Barns, Chester, CH4 0DH
<https://arbtech.co.uk>, 01244 661170

Project:
Meltham Greenway Phase 3A,
Huddersfield,
West Yorkshire,
HD4 7FB

Client: **Kirklees Council**

Drawing:
Arboricultural Impact Assessment

Based on: HD/ADV-207/CON/1

Drawing No:	Rev:
Arbtech AIA 01 Sheet 1 of 3	

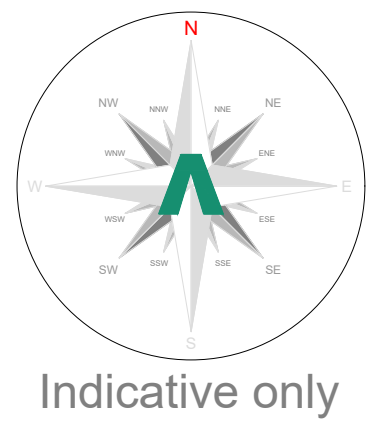
Date:	Scale:	Drawn:
Oct 2024	1:300 @ A0	AST

Key:					
Tree Nos.:	T05	Tree Canopies:		Trunks:	
RPA's:		Category 'A' trees:		Category 'A' trees:	
Category 'A' groups:		Category 'B' trees:		Category 'B' groups:	
Category		Category		Tree to be	

Proposed greenway:		Required works area:	
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All dimensions should be checked on site. No dimensions are to be relied from this drawing.
Please notify us of any discrepancies found. Architect Consulting Ltd. cannot be held responsible for inaccuracies
in the drawing or for any errors in which this plan is dated.
This drawing is designed to reflect the principles of the layout or design only, and relates only to the protection of
retained trees.
This drawing is not to be used as a definitive part of the engineering or construction designs or method statements.
An architect or structural engineer should be contacted over any matters of construction, detailing or specification
and for any standards or regulatory requirements relating to proposed structures, hard surfacing or underground
services.
This drawing was produced in colour – a monochrome copy should not be relied upon.

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Indicative only

Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

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

Category 'V' - 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 50mm.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Area (RPA) should be defined around each of the category 'A', 'B' and 'C' trees. This is a minimum area in which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'. The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Arboricultural Impacts

Impacts	Nos. of trees
Trees to be removed	32
Groups / Hedges to be removed (Partial removal of groups)	9 (1)
Unavoidable existing planting works	2
Trees / Groups / Hedges to be transplanted	0

Tree Work Schedule

No.	Species	Works	Category
T11	Goat willow	Fell to ground level, remove stump	C1
T12	Hedgerow	Fell to ground level, remove stump	C1
T13	Oak	Fell to ground level, remove stump	C1
T23	Ash	Fell to ground level, remove stump	C1
T28	Silver birch	Fell to ground level, remove stump	C1
T30	Ash	Fell to ground level, remove stump	C1
T32	Hedgerow	Fell to ground level, remove stump	C1
T38	Oak	Fell to ground level, remove stump	C1
W01-16	Silver birch	Fell to ground level, remove stump	C1
W01-17	Goat willow	Fell to ground level, remove stump	U
W01-18	Silver birch	Fell to ground level, remove stump	U
W01-19	Silver birch	Fell to ground level, remove stump	C1
W01-20	Silver birch	Fell to ground level, remove stump	C1
W01-21	Silver birch	Fell to ground level, remove stump	U
W01-22	Silver birch	Fell to ground level, remove stump	U
W01-23	Silver birch	Fell to ground level, remove stump	C1
W01-24	Silver birch	Fell to ground level, remove stump	C1
W01-25	Silver birch	Fell to ground level, remove stump	C1
W01-26	Silver birch	Fell to ground level, remove stump	U
W01-27	Silver birch	Fell to ground level, remove stump	C1
W01-28	Silver birch	Fell to ground level, remove stump	C1
W01-30	Goat willow	Fell to ground level, remove stump	C1
W01-34	Sycamore	Fell to ground level, remove stump	U
W01-44	Goat willow	Fell to ground level, remove stump	U
W02-04	Silver birch	Fell to ground level, remove stump	B1
W02-06	Silver birch	Fell to ground level, remove stump	C1
W02-07	Silver birch	Fell to ground level, remove stump	C1
W02-08	Silver birch	Fell to ground level, remove stump	C1
W02-10	Oak	Fell to ground level, remove stump	U
W02-31	Hedgerow	Fell to ground level, remove stump	U
W02-34	Silver birch	Fell to ground level, remove stump	C1
G05	Various	Remove section of O&B from green hatched works area on northern side of the proposed greenway	C2
W01	Various	Crown lift to 2.5m above proposed track to facilitate construction of proposed greenway	A2
W02	Various	Crown lift to 2.5m above proposed track to facilitate construction of proposed greenway	A2

All tree work is to be undertaken in accordance with British Standard BS 3968:2010 Tree work - Recommendations. All stumps are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

No. of individual trees to be removed

U	A	B	C
16	0	1	17

No. of groups / hedges to be removed

U	A	B	C
9 (1)	0 (0)	0 (0)	0 (1)
(-) = Partial removal of a group			

Arboricultural Method Statement

All tree work is to be undertaken in accordance with British Standard BS 3968:2010 Tree work - Recommendations. Please refer to Arbor Consulting Ltd. Tree Schedule, Arboricultural Method Statement and Tree Protection Plan for full details of all surveyed trees and how all aspects of the development may be implemented without detriment to retained trees.



Project: Meltham Greenway Phase 3A, Huddersfield, West Yorkshire, HD4 7FB

Client: Kirklees Council

Drawing: Arboricultural Impact Assessment

Based on: HD/ADV-207/CON/1

Drawing No: Arbtech AIA 01 Sheet 2 of 3

Date: Oct 2024

Scale: 1:300 @ A0

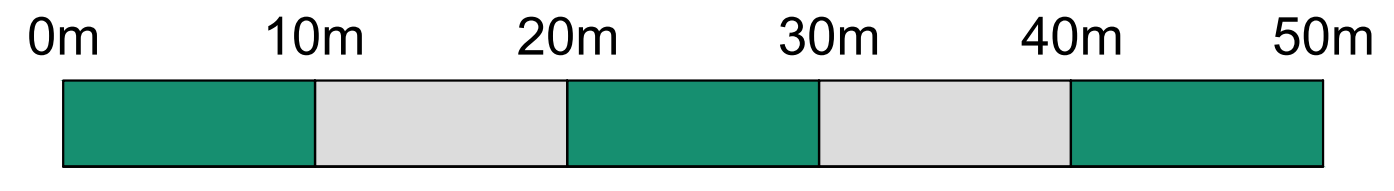
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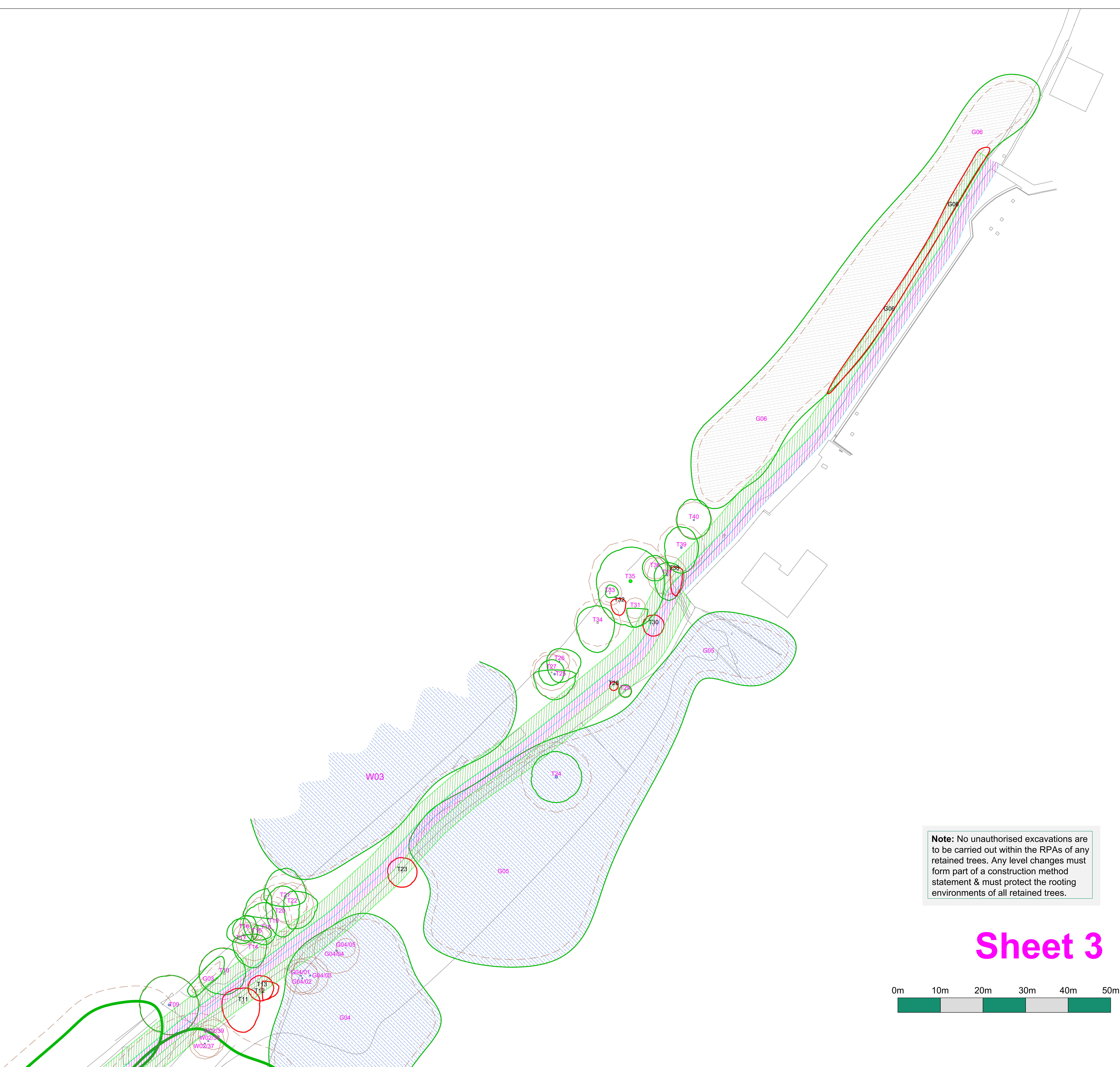
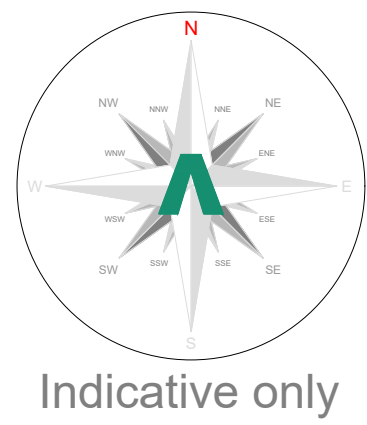
Key: Tree No. T05, Tree Canopies, Trunks, Category 'A' trees, Category 'B' trees, Category 'C' trees, Tree to be removed, Required works area.

Arbor Consulting Ltd. is a limited liability company registered in England. The company is authorised to provide tree surveying and arboricultural services. The company is not to be used as a definition of the company's services or as a guarantee of the company's services. The company is not to be used as a definition of the company's services or as a guarantee of the company's services. The company is not to be used as a definition of the company's services or as a guarantee of the company's services.

Note: No unauthorised excavations are to be carried out within the RPAs of any retained trees. Any level changes must form part of a construction method statement & must protect the rooting environments of all retained trees.

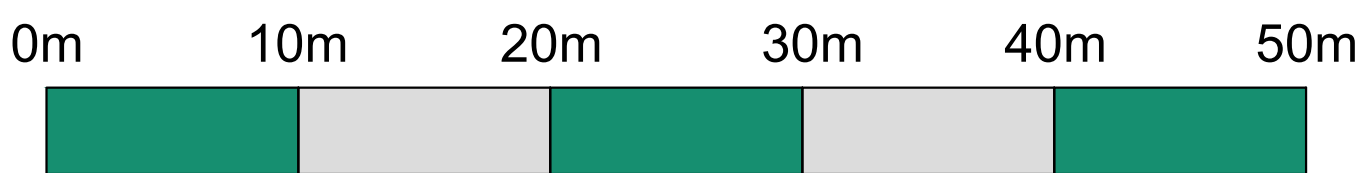
Sheet 2





Note: No unauthorised excavations are to be carried out within the RPAs of any retained trees. Any level changes must form part of a construction method statement & must protect the rooting environments of all retained trees.

Sheet 3



Tree Categories

Trees are categorised in accordance with the cascade chart in Table 1 of the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'

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

Category 'V' - Trees of high quality with an estimated remaining life expectancy of at least 40 years.

Category 'W' - Trees of moderate quality with an estimated remaining life expectancy of at least 20 years.

Category 'X' - Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 100mm.

Root Protection Area

In order to avoid damage to the roots or rooting environment of retained trees, the Root Protection Areas (RPAs) should be defined around each of the category 'A', 'B' and 'C' trees. This is a minimum area in which should be left undisturbed around each retained tree.

The RPA is calculated using the British Standard BS 5837:2012 'Trees in relation to design, demolition and construction - Recommendations'.

The calculated RPA is capped to 707m², which is the equivalent to a circle with a radius of 15m. Where there appears to be restrictions to root growth the root protection area is reshaped to more accurately reflect the likely distribution of the roots.

Arboricultural Impacts

Impacts	Nos. of trees
Trees to be removed	32
Groups / Hedges to be removed (Partial removal of groups)	0 (1)
Unavoidable existing planting works	2
Trees / Groups / Hedges to be transplanted	0

Tree Work Schedule

No.	Species	Works	Category
T11	Goat willow	Fell to ground level, remove stump	C1
T12	Hawthorn	Fell to ground level, remove stump	C1
T13	Oak	Fell to ground level, remove stump	C1
T23	Ash	Fell to ground level, remove stump	C1
T26	Silver birch	Fell to ground level, remove stump	C1
T30	Ash	Fell to ground level, remove stump	C1
T32	Hawthorn	Fell to ground level, remove stump	C1
T38	Oak	Fell to ground level, remove stump	C1
W01-16	Silver birch	Fell to ground level, remove stump	C1
W01-17	Goat willow	Fell to ground level, remove stump	U
W01-18	Silver birch	Fell to ground level, remove stump	U
W01-19	Silver birch	Fell to ground level, remove stump	C1
W01-20	Silver birch	Fell to ground level, remove stump	C1
W01-21	Silver birch	Fell to ground level, remove stump	U
W01-22	Silver birch	Fell to ground level, remove stump	U
W01-23	Silver birch	Fell to ground level, remove stump	C1
W01-24	Silver birch	Fell to ground level, remove stump	C1
W01-25	Silver birch	Fell to ground level, remove stump	C1
W01-26	Silver birch	Fell to ground level, remove stump	U
W01-27	Silver birch	Fell to ground level, remove stump	C1
W01-28	Silver birch	Fell to ground level, remove stump	C1
W01-33	Goat willow	Fell to ground level, remove stump	C1
W01-34	Sycamore	Fell to ground level, remove stump	U
W01-44	Goat willow	Fell to ground level, remove stump	U
W02-04	Silver birch	Fell to ground level, remove stump	B1
W02-06	Silver birch	Fell to ground level, remove stump	C1
W02-07	Silver birch	Fell to ground level, remove stump	C1
W02-08	Silver birch	Fell to ground level, remove stump	C1
W02-10	Oak	Fell to ground level, remove stump	U
W02-11	Hawthorn	Fell to ground level, remove stump	U
W02-31	Goat willow	Fell to ground level, remove stump	U
W02-34	Silver birch	Fell to ground level, remove stump	C1
G05	Various	Remove section of O&B from green hatched works area on northern side of the proposed greenway	C2
W01	Various	Crown lift to 2.5m above proposed track to facilitate construction of proposed greenway	A2
W02	Various	Crown lift to 2.5m above proposed track to facilitate construction of proposed greenway	A2

All tree work is to be undertaken in accordance with British Standard BS 3968:2010 Tree work - Recommendations

All stumps are to be removed and the site is to be left as found. Care is to be taken of the ground around retained trees to make sure that it does not become compacted as a result of tree surgery operations. No equipment or vehicles such as timber lorries, tractors, excavators or cranes shall be parked or driven beneath the crowns of any retained trees, to prevent subsequent compaction and root death.

No. of individual trees to be removed

U	A	B	C
16	0	1	17

No. of groups / hedges to be removed

U	A	B	C
0 (0)	0 (0)	0 (0)	0 (1)

0 (1) Partial removal of a group

Arboricultural Method Statement

All tree work is to be undertaken in accordance with British Standard BS 3968:2010 Tree work - Recommendations

Please refer to Arbtch Consulting Ltd. Tree Schedule, Arboricultural Method Statement and Tree Protection Plan for full details of all surveyed trees and how all aspects of the development may be implemented without detriment to retained trees.

arbtch

Unit 3, Well House Barns, Chester, CH4 0DH

https://arbtch.co.uk/ 01244 661170

Project:

Meltham Greenway Phase 3A, Huddersfield, West Yorkshire, HD4 7FB

Client:

Kirklees Council

Drawing:

Arboricultural Impact Assessment

Based on:

HD/ADV-207/CON/1

Drawing No:

Arbtch AIA 01 Sheet 3 of 3

Date:

Oct 2024

Scale:

1:300 @ A0

Drawn:

AST

Key:

Tree Nos.

T05

Tree Categories

Category 'U' trees

Category 'V' trees

Category 'W' trees

Category 'X' trees

Category 'Y' groups

Category 'Z' groups

Proposed greenway

Required works area

Trunk

Category 'A' trees

Category 'B' trees

Category 'C' groups

Tree to be removed

T16

Arbtch Consulting Ltd. 2024

Appendix 2: Tree Survey Schedule

BS5837:2012 Tree Survey

Arbtech Consulting Ltd.

Client: Kirklees Council
 Project: Meltham Greenway Phase 3A, Huddersfield, HD4 7FB
 Survey Date: 10/10/2024 - 17/10/2024
 Surveyor: Tom Baron



Unit 3 Well House Barns
 Chester
 Cheshire
 CH4 0DH
 Phone: 01244661170
 Mobile: N/A

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC		
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment					
G01												Estimated Measurements				
Various		15	1	400	N	3	2	EM	A: 72.4 R: 4.8	Good	C: Good S: Good B: Good	Linear strip of trees along footpath; species including birch, oak, sycamore and goat willow; stems between 2-4m of footpath edge; dimensions recorded are the largest within the group.			B.2 20+ yrs	
See comments for details					E	3										4
					S	3										1
					W	3										1
G02												Estimated Measurements				
Various		16	1	300	N	3	1	EM	A: 40.7 R: 3.59	Good	C: Good S: Good B: Good	Linear strip of trees along footpath; species including ash, birch, oak, sycamore and goat willow; stems between 2-4m of footpath edge; dimensions recorded are the largest within the group.			B.2 20+ yrs	
See comments for details					E	3										2
					S	3										2
					W	3										1
G03												Estimated Measurements				
Various		6	1	150	N	3	1	SM	A: 10.2 R: 1.8	Good	C: Good S: Fair B: Fair	Cluster of hawthorn and elder; partly growing out of collapsed stem resting upon wall; dimensions recorded are the largest within the group.			C.2 10+ yrs	
See comments for details					E	3										1
					S	3										1
					W	3										1
G04												Estimated Measurements				
Various		16	2	388 (Eq)	N	6	3.5	EM	A: 68.2 R: 4.65	Good	C: Good S: Good B: Good	Small copse bounded by timber fence; species including oak, ash, goat willow and elder; overhanging track on north side by up to 4-5m; dimensions recorded are the largest within the group.			B.2 20+ yrs	
See comments for details					E	6										2
					S	6										2
					W	6										2
Age Classifications:		N	Newly planted	EM	Early Mature	Condition:		C	Crown	Stems:		Ø	Diameter			
		Y	Young	M	Mature			S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition			
		SM	Semi-mature	OM	Over Mature			B	Basal area	ERC:		Estimated Remaining Contributio				

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
G04/01													
Common Oak <i>Quercus robur</i>		1	330			EM	A: 49.3 R: 3.96		C: S: B:				B.1 20+ yrs
G04/02													
Common Oak <i>Quercus robur</i>		1	320			EM	A: 46.3 R: 3.83		C: S: B:				B.1 20+ yrs
G04/03													
Common Oak <i>Quercus robur</i>		1	360			EM	A: 58.6 R: 4.31		C: S: B:				B.1 20+ yrs
G04/04													
Common Oak <i>Quercus robur</i>		1	440			EM	A: 87.6 R: 5.28		C: S: B:				B.1 20+ yrs
G04/05													
Common or Black Elder <i>Sambucas nigra</i>		3	185 (Eq)			EM	A: 15.6 R: 2.22		C: S: B:				C.1 10+ yrs
G05												Estimated Measurements	
Various <i>See comments for details</i>	17	1	350	N E S W	6 6 6 6	2 2 2 2	EM A: 55.4 R: 4.19	Good	C: Good S: Good B: Good			Copse upon sloped embankment; species including oak, ash and hawthorn; hawthorn with low clearance over footpath on north side; dimensions recorded are the largest within the group.	B.2 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area		Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
G06												Estimated Measurements	
Various <i>See comments for details</i>	8	1	200	N	4	0	SM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	Appears off-site within raised embankment; species including goat willow, birch, cherry, oak, ash, hawthorn and mixed shrubs; low overhang to edge of footpath; dimensions recorded are the largest within the group.		C.2 10+ yrs
				E	4	0							
				S	4	0							
				W	4	0							
T01													
Goat Willow <i>Salix caprea</i>	15	1	370	N	5	3	EM	A: 61.9 R: 4.43	Good	C: Good S: Good B: Good			B.1 20+ yrs
				E	7	3							
				S	6	3							
				W	3	3							
T02												Estimated Measurements	
Silver Birch <i>Betula pendula</i>	16	1	200	N	4	3	EM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good			B.1 20+ yrs
				E	2	3							
				S	2	3							
				W	2	3							
T03												Estimated Measurements	
Common Hawthorn <i>Crataegus monogyna</i>	7	1	100	N	1	1	SM	A: 4.5 R: 1.19	Good	C: Good S: Good B: Good			C.1 10+ yrs
				E	1	1							
				S	1	1							
				W	1	1							
T04													
Birch <i>Betula sp.</i>	13	1	110	N	2	3	SM	A: 5.5 R: 1.32	Good	C: Good S: Good B: Good			C.1 10+ yrs
				E	2	3							
				S	2	3							
				W	2	3							
T05													
Sycamore <i>Acer pseudoplatanus</i>	12	2	377 (Eq)	N	5	3	EM	A: 64.4 R: 4.52	Good	C: Good S: Good B: Good			B.1 20+ yrs
				E	12	3							
				S	10	3							
				W	1	3							
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area		Stems: ERC:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T06											Estimated Measurements		
Silver Birch <i>Betula pendula</i>	14	1	200	N	2	3	EM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	B.1 20+ yrs		
T07											Estimated Measurements		
Common Oak <i>Quercus robur</i>	14	1	260	N	5	3	EM	A: 30.6 R: 3.12	Good	C: Good S: Good B: Good	B.1 20+ yrs		
T08													
Sycamore <i>Acer pseudoplatanus</i>	16	1	500	N	6	6	EM	A: 113.1 R: 6	Good	C: Good S: Good B: Good	B.1 20+ yrs		
T09													
Common Ash <i>Fraxinus excelsior</i>	17	2	578 (Eq)	N	7	2.5	EM	A: 151.2 R: 6.93	Good	C: Good S: Good B: Good	B.1 20+ yrs		
T10													
Common Ash <i>Fraxinus excelsior</i>	15	1	500	N	6	6	EM	A: 113.1 R: 6	Fair	C: Fair S: Good B: Good	C.1 10+ yrs		
T11													
Goat Willow <i>Salix caprea</i>	15	3	604 (Eq)	N	3.5	6	M	A: 165.1 R: 7.24	Fair	C: Fair S: Poor B: Fair	C.1 10+ yrs		
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio		

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T12													
Common Hawthorn <i>Crataegus monogyna</i>	8	3	224 (Eq)	N	3	1.5	EM	A: 22.6 R: 2.68	Good	C: Good S: Fair B: Fair			C.1 10+ yrs
T13													
Common Oak <i>Quercus robur</i>	4	1	200	N	1.5	1.5	SM	A: 18.1 R: 2.4	Fair	C: Fair S: Fair B: Fair	Exposed surface roots; suppressed with low and bias crown.		C.1 10+ yrs
T14													
Common Oak <i>Quercus robur</i>	14	1	350	N	2	2	EM	A: 55.4 R: 4.19	Good	C: Fair S: Good B: Good			B.1 20+ yrs
T15													
Common Oak <i>Quercus robur</i>	6	1	120	N	2	2	Y	A: 6.5 R: 1.43	Good	C: Good S: Good B: Good			C.1 10+ yrs
T16													
Common Ash <i>Fraxinus excelsior</i>	13	1	200	N	4	3	SM	A: 18.1 R: 2.4	Fair	C: Fair S: Good B: Good	Crown bias to northwest; signs of ash dieback in crown.		C.1 10+ yrs
T17													
Common Ash <i>Fraxinus excelsior</i>	13	1	200	N	4	3	SM	A: 18.1 R: 2.4	Fair	C: Fair S: Good B: Good	Crown bias to northwest; signs of ash dieback in crown.		C.1 10+ yrs
Age Classifications: N Newly planted EM Early Mature Condition: C Crown Y Young M Mature S Stem SM Semi-mature OM Over Mature B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio													

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T18													
Common Ash <i>Fraxinus excelsior</i>	17	1	470	N E S W	5 3 5 5	5 7 7 7	EM A: 99.9 R: 5.63	Poor	C: Poor S: Good B: Good	Crown in poor health due to ash dieback.			C.1 10+ yrs
T19													
Common Ash <i>Fraxinus excelsior</i>	13	1	450	N E S W	7 1 0 6	2 13 5 1	EM A: 91.6 R: 5.39	Poor	C: Fair S: Good B: Good	Crown in poor health due to ash dieback; crown bias to northwest.			C.1 10+ yrs
T20													
Common Ash <i>Fraxinus excelsior</i>	16	1	470	N E S W	5 4 7 4	2 10 6 3	EM A: 99.9 R: 5.63	Fair	C: Fair S: Good B: Good	Crown in reduced health due to ash dieback.			C.1 10+ yrs
T21													
Common Ash <i>Fraxinus excelsior</i>	16	1	460	N E S W	7 5 2 5	3 4 10 5	EM A: 95.7 R: 5.51	Fair	C: Fair S: Good B: Good	Crown in reduced health due to ash dieback.			C.1 10+ yrs
T22													
Common Ash <i>Fraxinus excelsior</i>	16	1	410	N E S W	3 6 6 2	8 3.5 6 10	EM A: 76.1 R: 4.92	Fair	C: Fair S: Good B: Good	Crown in reduced health due to ash dieback.			C.1 10+ yrs
T23													
Common Ash <i>Fraxinus excelsior</i>	12	1	200	N E S W	3.5 3.5 3.5 3.5	5 3 5 3	SM A: 18.1 R: 2.4	Fair	C: Fair S: Good B: Good	Reduced vitality due to ash dieback disease.			C.1 10+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:			C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T24													
Common Ash <i>Fraxinus excelsior</i>	16	5	676 (Eq)	N	6	8	EM	A: 206.8 R: 8.11	Fair	C: Good S: Fair B: Good	Minor crown dieback likely due to ash dieback; multi-stemmed at base.	B.1 20+ yrs	
T25													
Common Oak <i>Quercus robur</i>	13	2	461 (Eq)	N	1	3	EM	A: 96.1 R: 5.53	Good	C: Good S: Fair B: Good	Twin-stemmed at base; ash growing against stem; crown bias to south.	B.1 20+ yrs	
T26													
Common Oak <i>Quercus robur</i>	8	1	200	N	3	2	SM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good		B.1 20+ yrs	
T27													
Common Ash <i>Fraxinus excelsior</i>	14	1	350	N	3	4	EM	A: 55.4 R: 4.19	Fair	C: Fair S: Fair B: Good	Crown decline likely due to ash dieback disease.	C.1 10+ yrs	
T28													
Silver Birch <i>Betula pendula</i>	5	2	71 (Eq)	N	1	1	Y	A: 2.3 R: 0.85	Good	C: Good S: Good B: Good	Growing against fence immediately adjacent to footpath.	C.1 10+ yrs	
T29													
Common Oak <i>Quercus robur</i>	5	1	110	N	1.5	2	Y	A: 5.5 R: 1.32	Good	C: Good S: Good B: Good	Located 3m to south of path.	C.1 10+ yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T30													
Common Ash <i>Fraxinus excelsior</i>	6	1	170	N	2.5	1	SM	A: 13.1 R: 2.04	Good	C: Good S: Good B: Good	Insect damage to foliage.	C.1 10+ yrs	
T31													
Common Oak <i>Quercus robur</i>	8	1	200	N	0	1	SM	A: 18.1 R: 2.4	Good	C: Good S: Good B: Good	Suppressed leading to crown being bias to south.	C.1 10+ yrs	
T32													
Common Hawthorn <i>Crataegus monogyna</i>	4	6	196 (Eq)	N	1	1	SM	A: 17.4 R: 2.35	Poor	C: Poor S: Poor B: Good	Multi-stemmed at base; in poor condition.	U <10 yrs	
T33													
Common Hawthorn <i>Crataegus monogyna</i>	6	3	232 (Eq)	N	2	1	SM	A: 24.3 R: 2.78	Fair	C: Fair S: Fair B: Good	Multi-stemmed at base.	C 10+ yrs	
T34											Estimated Measurements		
Goat Willow <i>Salix caprea</i>	8	2	450 (Eq)	N	4	2	EM	A: 91.6 R: 5.39	Good	C: Fair S: Poor B: Fair	Twin-stemmed at base; one stem growing laterally and resting upon disused farm equipment, with crown growing over footpath at a low level.	C.1 10+ yrs	
T35											Estimated Measurements		
Common Oak <i>Quercus robur</i>	15	1	800	N	8	3	M	A: 289.6 R: 9.6	Good	C: Good S: Good B: Good	Located at the top of the short embankment; deadwood to lower crown as a result of shading.	A.1 40+ yrs	
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	ERC:	Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
T36													
Common Oak <i>Quercus robur</i>	13	1	210	N	3	8	SM	A: 20	Good	C: Fair			C.1
				E	3	8		R: 2.52		S: Good	Suppressed crown.		10+ yrs
				S	3	3				B: Good			
				W	3	8							
T37													
Common Oak <i>Quercus robur</i>	14	1	380	N	3	4	EM	A: 65.3	Good	C: Fair			B.1
				E	4	5		R: 4.55		S: Good	Suppressed crown.		20+ yrs
				S	6	5				B: Good			
				W	3	3							
T38													
Common Oak <i>Quercus robur</i>	8	1	200	N	1	1	EM	A: 18.1	Good	C: Fair			C.1
				E	2	1		R: 2.4		S: Good	Suppressed crown.		10+ yrs
				S	6	5				B: Good			
				W	1	1							
T39													
Common Oak <i>Quercus robur</i>	12	1	450	N	5	2	EM	A: 91.6	Good	C: Good			B.1
				E	4	2		R: 5.39		S: Good	Located halfway up sloped embankment.		20+ yrs
				S	6	3.5				B: Good			
				W	4	4							
T40													
Common Oak <i>Quercus robur</i>	11	1	350	N	5	2	EM	A: 55.4	Good	C: Good			B.1
				E	4	2		R: 4.19		S: Good	Located halfway up sloped embankment.		20+ yrs
				S	4.5	3.5				B: Good			
				W	4	4							
Age Classifications:	N	Newly planted	EM	Early Mature	Condition:			C	Crown	Stems:	Ø	Diameter	
	Y	Young	M	Mature				S	Stem		(Eq)	Equivalent stem diameter using BS5837:2012 definition	
	SM	Semi-mature	OM	Over Mature				B	Basal area	ERC:	Estimated Remaining Contributio		

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W01												Estimated Measurements	
Various <i>See comments for details</i>	18	1	800	N E S W	6 6 6 6	1 1 1 1	EM A: 289.6 R: 9.6	Good	C: Good S: Good B: Good	Linear woodland strip upon sloped embankment; species including oak, sycamore, ash, goat willow and birch; localised mounds, dips and sloped tracks within; trees with natural defects such as deadwood, stem decay, branch failures - assessed individually where U category; general ground clearance of 4-5m over central track; deadwood over track up to 200mm dia.; waterlogged and excavated ground in areas; dimensions recorded are the largest within the group.			A.2 40+ yrs
W01/01													
Silver Birch <i>Betula pendula</i>		1	150				SM A: 10.2 R: 1.8		C: S: B:				C 10+ yrs
W01/02													
Common Oak <i>Quercus robur</i>		1	520				EM A: 122.3 R: 6.23		C: S: B:				B 20+ yrs
W01/03													
Common Oak <i>Quercus robur</i>		1	230				SM A: 23.9 R: 2.75		C: S: B:				B 20+ yrs
W01/04													
Silver Birch <i>Betula pendula</i>		2	170 (Eq)				SM A: 13 R: 2.03		C: S: B:				C 10+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area			Stems: ERC:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
W01/05													
Silver Birch <i>Betula pendula</i>			1	190			SM	A: 16.3 R: 2.27		C: S: B:	-----		C 10+ yrs
W01/06													
Silver Birch <i>Betula pendula</i>			3	246 (Eq)			SM	A: 27.4 R: 2.95		C: S: B:	-----		C 10+ yrs
W01/07													
Silver Birch <i>Betula pendula</i>			1	180			SM	A: 14.7 R: 2.16		C: S: B:	-----		C 10+ yrs
W01/08													
Silver Birch <i>Betula pendula</i>			1	160			SM	A: 11.6 R: 1.92		C: S: B:	-----		C 10+ yrs
W01/09													
Silver Birch <i>Betula pendula</i>			1	140			SM	A: 8.9 R: 1.68		C: S: B:	-----		C 10+ yrs
W01/10													
Silver Birch <i>Betula pendula</i>			1	140			SM	A: 8.9 R: 1.68		C: S: B:	-----		C 10+ yrs
Age Classifications:		N	Newly planted	EM	Early Mature	Condition:		C	Crown	Stems:		Ø	Diameter
		Y	Young	M	Mature			S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition
		SM	Semi-mature	OM	Over Mature			B	Basal area	ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations	Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment	
W01/11											
Silver Birch <i>Betula pendula</i>		1	210			SM	A: 20 R: 2.52		C: S: B:		B 20+ yrs
W01/12											
Sycamore <i>Acer pseudoplatanus</i>		2	354 (Eq)			EM	A: 56.6 R: 4.24		C: S: B:		B 20+ yrs
W01/13											
Common Oak <i>Quercus robur</i>		1	260			SM	A: 30.6 R: 3.12		C: S: B:		B 20+ yrs
W01/14											
Common Oak <i>Quercus robur</i>		1	140			SM	A: 8.9 R: 1.68		C: S: B:		C 10+ yrs
W01/15											
Common Oak <i>Quercus robur</i>		1	720			M	A: 234.5 R: 8.63		C: S: B:		A 40+ yrs
W01/16											
Silver Birch <i>Betula pendula</i>		1	270			EM	A: 33 R: 3.24		C: S: B:		C 10+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature		Condition:	C S B	Crown Stem Basal area		Stems: ERC:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W01/17													
Goat Willow <i>Salix caprea</i>		1	550			EM	A: 136.9 R: 6.6	Fair	C: S: B:		Shaded crown resulting in large dead branches; decay column from base to 2m with some adaptive growth but likely not enough to prevent failure.		U <10 yrs
W01/18													
Silver Birch <i>Betula pendula</i>		1	190			SM	A: 16.3 R: 2.27		C: S: B:		Dead stump with severed roots and exposed rootplate.		U <10 yrs
W01/19													
Silver Birch <i>Betula pendula</i>		1	190			SM	A: 16.3 R: 2.27		C: S: B:				C 10+ yrs
W01/20													
Common Oak <i>Quercus robur</i>		1	230			SM	A: 23.9 R: 2.75		C: S: B:				C 10+ yrs
W01/21													
Silver Birch <i>Betula pendula</i>		1	120			SM	A: 6.5 R: 1.43		C: S: B:		Standing dead stump.		U <10 yrs
W01/22													
Silver Birch <i>Betula pendula</i>		1	160			SM	A: 11.6 R: 1.92		C: S: B:		Standing dead stump.		U <10 yrs
Age Classifications:	N	Newly planted	EM	Early Mature		Condition:	C	Crown		Stems:	Ø	Diameter	
	Y	Young	M	Mature			S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition	
	SM	Semi-mature	OM	Over Mature			B	Basal area		ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W01/23													
Silver Birch <i>Betula pendula</i>		1	190			SM	A: 16.3 R: 2.27		C: S: B:				C 10+ yrs
W01/24													
Silver Birch <i>Betula pendula</i>		1	80			SM	A: 2.9 R: 0.96		C: S: B:	Standing dead stump.			U <10 yrs
W01/25													
Silver Birch <i>Betula pendula</i>		1	190			SM	A: 16.3 R: 2.27		C: S: B:				C 10+ yrs
W01/26													
Silver Birch <i>Betula pendula</i>		1	120			SM	A: 6.5 R: 1.43		C: S: B:	Standing dead stump.			U <10 yrs
W01/27													
Silver Birch <i>Betula pendula</i>		1	200			SM	A: 18.1 R: 2.4		C: S: B:	Standing dead stump.			U <10 yrs
W01/28													
Goat Willow <i>Salix caprea</i>		2	349 (Eq)			EM	A: 55.2 R: 4.19		C: S: B:	Past partial crown failure with dead sections of crown remaining; audible signs of decay to lower stem.			U <10 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature		Condition:	C S B	Crown Stem Basal area		Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	
										ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W01/29													
Sycamore <i>Acer pseudoplatanus</i>		1	430			EM	A: 83.7 R: 5.16		C: S: B:				B 20+ yrs
W01/30													
Sycamore <i>Acer pseudoplatanus</i>		2	313 (Eq)			EM	A: 44.4 R: 3.75		C: S: B:				B 20+ yrs
W01/31													
Common Oak <i>Quercus robur</i>		2	524 (Eq)			EM	A: 124.2 R: 6.28		C: S: B:				B 20+ yrs
W01/32													
Common Oak <i>Quercus robur</i>		2	404 (Eq)			EM	A: 73.7 R: 4.84		C: S: B:		Livestock damage to base of stem.		C 10+ yrs
W01/33													
Goat Willow <i>Salix caprea</i>		2	367 (Eq)			EM	A: 60.9 R: 4.4		C: S: B:		Dead twin-stemmed tree with decayed base.		U <10 yrs
W01/34													
Sycamore <i>Acer pseudoplatanus</i>		1	250			SM	A: 28.3 R: 3		C: S: B:		Dead twin-stemmed tree with decayed base.		U <10 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature		Condition:	C S B	Crown Stem Basal area		Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	
										ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
W01/35												
Sycamore <i>Acer pseudoplatanus</i>		1	250			SM	A: 28.3 R: 3		C: S: B:			C 10+ yrs
W01/36												
Common Oak <i>Quercus robur</i>		1	600			M	A: 162.9 R: 7.2		C: S: B:			A 40+ yrs
W01/37												
Sycamore <i>Acer pseudoplatanus</i>		3	737 (Eq)			M	A: 245.5 R: 8.83		C: S: B:			B 20+ yrs
W01/38												
Common Oak <i>Quercus robur</i>		1	350			EM	A: 55.4 R: 4.19		C: S: B:			B 20+ yrs
W01/39												
Sycamore <i>Acer pseudoplatanus</i>		1	300			EM	A: 40.7 R: 3.59		C: S: B:			B 20+ yrs
W01/40												
Common Ash <i>Fraxinus excelsior</i>		1	600			EM	A: 162.9 R: 7.2		C: S: B:			B 20+ yrs
Age Classifications: N Newly planted Y Young SM Semi-mature EM Early Mature M Mature OM Over Mature Condition: C Crown S Stem B Basal area Stems: Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition ERC: Estimated Remaining Contributio												

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W01/41													
Sycamore <i>Acer pseudoplatanus</i>		1	500			EM	A: 113.1 R: 6		C: S: B:				B 20+ yrs
W01/42													
Common Oak <i>Quercus robur</i>		1	500			EM	A: 113.1 R: 6		C: S: B:		Hung-up failed branch in crown overhanging footpath.		B 20+ yrs
W01/43													
Common Oak <i>Quercus robur</i>		1	320			EM	A: 46.3 R: 3.83		C: S: B:		Decay to base of stem; suppressed by adjacent tree.		C 10+ yrs
W01/44													
Goat Willow <i>Salix caprea</i>		1	420			EM	A: 79.8 R: 5.03		C: S: B:		Decay column to base of stem with increased likelihood of failure.		U <10 yrs
W01/45													
Common Oak <i>Quercus robur</i>		1	560			EM	A: 141.9 R: 6.72		C: S: B:		Severed roots on south side.		B 20+ yrs
Age Classifications:	N	Newly planted	EM	Early Mature		Condition:	C	Crown		Stems:	Ø	Diameter	
	Y	Young	M	Mature			S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition	
	SM	Semi-mature	OM	Over Mature			B	Basal area		ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W02											Estimated Measurements		
Various <i>See comments for details</i>	18	1	800	N E S W	6 6 6 6	1 1 1 1	EM A: 289.6 R: 9.6	Good	C: Good S: Good B: Good	Linear woodland strip upon sloped embankment; species including oak, sycamore, ash, goat willow and birch; localised mounds, dips and sloped tracks within; trees with natural defects such as deadwood, stem decay, branch failures - assessed individually where U category; general ground clearance of 4-5m over central track; deadwood over track up to 200mm dia.; waterlogged and excavated ground in areas; dimensions recorded are the largest within the group.			A.2 40+ yrs
W02/01													
Sycamore <i>Acer pseudoplatanus</i>		3	590 (Eq)				EM A: 157.7 R: 7.08		C: S: B:				B 20+ yrs
W02/02													
Sycamore <i>Acer pseudoplatanus</i>		2	547 (Eq)				EM A: 135.4 R: 6.56		C: S: B:				B 20+ yrs
W02/03													
Sycamore <i>Acer pseudoplatanus</i>		2	484 (Eq)				EM A: 106.1 R: 5.81		C: S: B:				B 20+ yrs
W02/04													
Silver Birch <i>Betula pendula</i>		1	230				EM A: 23.9 R: 2.75		C: S: B:				B 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:		C S B	Crown Stem Basal area	Stems:		Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	ERC: Estimated Remaining Contributio

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W02/05													
Common Ash <i>Fraxinus excelsior</i>		2	234 (Eq)	N E S W	6 3 2 1	4 SM	A: 24.8 R: 2.8		C: S: B:		Crown bias to north over footpath.		C 10+ yrs
W02/06													
Silver Birch <i>Betula pendula</i>		1	150			SM	A: 10.2 R: 1.8		C: S: B:				C 10+ yrs
W02/07													
Silver Birch <i>Betula pendula</i>		1	180			SM	A: 14.7 R: 2.16	Dead	C: S: B:		Dead standing stump.		U <10 yrs
W02/08													
Silver Birch <i>Betula pendula</i>		1	200			SM	A: 18.1 R: 2.4		C: S: B:		Stem leaning over footpath.		C 10+ yrs
W02/09													
Common Oak <i>Quercus robur</i>		2	380 (Eq)	N E S W	7 5 5 5	3 SM	A: 65.4 R: 4.56		C: S: B:		Stem leaning over footpath; twin-stemmed at base with decay to lower stems.		C 10+ yrs
W02/10													
Common Oak <i>Quercus robur</i>		1	180			SM	A: 14.7 R: 2.16		C: S: B:		Small dead stem leaning over and resting upon footpath.		U <10 yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature		Condition:	C S B	Crown Stem Basal area		Stems:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition	
										ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
W02/11												
Common Hawthorn <i>Crataegus monogyna</i>		1	130			SM	A: 7.6 R: 1.55		C: S: B:	Moribund tree.		U <10 yrs
W02/12												
Sycamore <i>Acer pseudoplatanus</i>		1	470			EM	A: 99.9 R: 5.63		C: S: B:			B 20+ yrs
W02/13												
Sycamore <i>Acer pseudoplatanus</i>		1	450			EM	A: 91.6 R: 5.39		C: S: B:			B 20+ yrs
W02/14												
Sycamore <i>Acer pseudoplatanus</i>		1	470			EM	A: 99.9 R: 5.63		C: S: B:			B 20+ yrs
W02/15												
Sycamore <i>Acer pseudoplatanus</i>		1	500			EM	A: 113.1 R: 6		C: S: B:			B 20+ yrs
W02/16												
Sycamore <i>Acer pseudoplatanus</i>		1	520			EM	A: 122.3 R: 6.23		C: S: B:			B 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature		Condition:	C S B	Crown Stem Basal area		Stems: ERC:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio	

Tree and Tag No Species		Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
			No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
W02/17													
Common Hawthorn <i>Crataegus monogyna</i>			2	142 (Eq)			SM	A: 9.1 R: 1.7		C: S: B:	-----		C 10+ yrs
W02/18													
Common Oak <i>Quercus robur</i>			1	230			SM	A: 23.9 R: 2.75		C: S: B:	-----		C 10+ yrs
W02/19													
Common Oak <i>Quercus robur</i>			1	320			SM	A: 46.3 R: 3.83		C: S: B:	-----		B 20+ yrs
W02/20													
Common Oak <i>Quercus robur</i>			1	300			SM	A: 40.7 R: 3.59		C: S: B:	-----		B 20+ yrs
W02/21													
Common Oak <i>Quercus robur</i>			1	300			EM	A: 40.7 R: 3.59		C: S: B:	-----		B 20+ yrs
W02/22													
Common Oak <i>Quercus robur</i>			1	170			SM	A: 13.1 R: 2.04		C: S: B:	-----		C 10+ yrs
Age Classifications:		N	Newly planted	EM	Early Mature	Condition:		C	Crown	Stems:		Ø	Diameter
	Y	Young	M	Mature				S	Stem			(Eq)	Equivalent stem diameter using BS5837:2012 definition
	SM	Semi-mature	OM	Over Mature				B	Basal area	ERC:		Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations		Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment		
W02/23												
Common Oak <i>Quercus robur</i>		1	320			EM	A: 46.3 R: 3.83		C: S: B:			B 20+ yrs
W02/24												
Common Hawthorn <i>Crataegus monogyna</i>		1	100			SM	A: 4.5 R: 1.19		C: S: B:			C 10+ yrs
W02/25												
Common Oak <i>Quercus robur</i>		1	200			SM	A: 18.1 R: 2.4		C: S: B:			B 20+ yrs
W02/26												
Common Oak <i>Quercus robur</i>		1	200			SM	A: 18.1 R: 2.4		C: S: B:	Damaged and exposed surface roots on north side.		B 20+ yrs
W02/27												
Sycamore <i>Acer pseudoplatanus</i>		1	300			EM	A: 40.7 R: 3.59		C: S: B:	Damaged and exposed surface roots on north side.		B 20+ yrs
W02/28												
Sycamore <i>Acer pseudoplatanus</i>		1	330			EM	A: 49.3 R: 3.96		C: S: B:	Damaged and exposed surface roots on north side.		B 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature	Condition:	C S B	Crown Stem Basal area	Stems: ERC:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio		

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W02/29													
Goat Willow <i>Salix caprea</i>		1	600			M	A: 162.9 R: 7.2		C: S: B:	Damaged and exposed surface roots on north side.			B 20+ yrs
W02/30													
Common Oak <i>Quercus robur</i>		1	290			SM	A: 38.1 R: 3.48		C: S: B:	Dead branch stubs in lower crown.			B 20+ yrs
W02/31													
Goat Willow <i>Salix caprea</i>		2	361 (Eq)			EM	A: 58.8 R: 4.32	Dead	C: S: B:	Dead standing stems.			U <10 yrs
W02/32													
Common Oak <i>Quercus robur</i>		1	280			SM	A: 35.5 R: 3.36		C: S: B:	Damaged and exposed surface roots on north side.			C 10+ yrs
W02/33													
Sycamore <i>Acer pseudoplatanus</i>		1	450			EM	A: 91.6 R: 5.39		C: S: B:	Damaged and exposed surface roots on north side.			C 10+ yrs
W02/34													
Silver Birch <i>Betula pendula</i>		1	320			EM	A: 46.3 R: 3.83		C: S: B:	Damaged and exposed surface roots on north side.			C 10+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature		Condition:	C S B	Crown Stem Basal area		Stems: ERC:	Ø (Eq)	Diameter Equivalent stem diameter using BS5837:2012 definition Estimated Remaining Contributio	

Tree and Tag No Species	Hght (m)	Stems		Crown		Age	RP A (m²) R (m)	Phys Condition	Structural Condition	Preliminary Recommendations			Cat ERC
		No	Ø (mm)	Spread (m)	Clear (m)					Survey Comment			
W02/35													
Sycamore <i>Acer pseudoplatanus</i>		2	446 (Eq)			EM	A: 90 R: 5.35		C: S: B:		Damaged and exposed surface roots on north side.		C 10+ yrs
W02/36													
Sycamore <i>Acer pseudoplatanus</i>		3	403 (Eq)			EM	A: 73.5 R: 4.83		C: S: B:		Damaged and exposed surface roots on north side.		C 10+ yrs
W02/37													
Common Oak <i>Quercus robur</i>		1	300			EM	A: 40.7 R: 3.59		C: S: B:				B 20+ yrs
W02/38													
Common Oak <i>Quercus robur</i>		1	310			EM	A: 43.5 R: 3.72		C: S: B:				B 20+ yrs
W02/39													
Common Oak <i>Quercus robur</i>		1	290			EM	A: 38.1 R: 3.48		C: S: B:				B 20+ yrs
W03												Estimated Measurements	
Various <i>See comments for details</i>	15	1	350	N E S W	5 5 5 5	1 1 1 1	EM A: 55.4 R: 4.19	Good	C: Good S: Good B: Good		Off-site woodland; not inspected in detail; predominantly oak, ash and goat willow; overhanging site on south side by up to 5m from boundary wall; dimensions recorded are the largest within the group.		B.2 20+ yrs
Age Classifications:	N Y SM	Newly planted Young Semi-mature	EM M OM	Early Mature Mature Over Mature			Condition:	C S B	Crown Stem Basal area		Stems:	Ø Diameter (Eq) Equivalent stem diameter using BS5837:2012 definition	
											ERC:	Estimated Remaining Contributio	

Appendix 2: Contact Details

Name	Position	Company	Contact
	Client	Kirklees Council	https://www.kirklees.gov.uk/beta/default.aspx
	Tree Officer		
Alan Thompson	Arboricultural Consultant	Arbtech Consulting Ltd.	01244 661170 Redacted https://arbtech.co.uk
	Site Manager		
	Main contractor		

Document Production Record

Document number	Editor	Signature	Position	Issue number	Date
Arbtech AIA 01	Alan Thompson	Redacted	Arboricultural Consultant	1	20/03/2025

Limitations

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