

Arboricultural Impact Assessment

WC-276.1a

Birkland Farm, Fulshaw Lane,
Penistone S36 9FD



Woodsage Consulting Ltd

Unit 2, Hey End Farm, Luddendenfoot, Halifax,
West Yorkshire HX2 6JN

T: 07962401997

E: info@woodsage.co.uk

W: <https://woodsage.co.uk>



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Report prepared by:	Jack Delaney MICFor MArborA
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Executive Summary

Woodsage Consulting Ltd have been instructed by Mrs J Birkett to carry out an Arboricultural Impact Assessment of the land at Birkland Farm, Fulshaw Lane, Penistone S36 9FD, in relation to the proposed development of the site.

The proposals are to demolish the existing agricultural and residential buildings and erect a new dwelling. Areas of domestic curtilage associated with the existing dwelling are also to be reverted back to open grassland.

According to information available on the website of Barnsley Metropolitan Borough Council (2024), none of the trees at the site are subject to tree preservation orders (TPOs), and the site is not located within a conservation area.

The site survey identified a total of 22 trees and seven groups of trees with the potential to be affected by the proposed development; these include eight category B trees and two groups of moderate-quality, nine category C trees and five groups of low-quality, and five category U trees with SULEs of 10 years or less.

The development proposals will necessitate the removal of two category B trees of moderate quality.

Five category C trees and five category U trees will also be removed for site management reasons.

The root protection areas (RPAs) of the retained trees are to be suitably protected throughout the development process by temporary tree protection fencing.

Providing the recommendations made within this report are followed, the development is considered achievable, with minimal impact in arboricultural terms to the site and surrounding area.



1. Introduction

1.1. Introduction and Scope of Report

- 1.1.1.** Woodsage Consulting Ltd have been instructed by Mrs J Birkett to produce an Arboricultural Impact Assessment of the land at Birkland Farm, Fulshaw Lane, Penistone S36 9FD, in relation to the proposed development of the site.
- 1.1.2.** The purpose of this report is to allow the local planning authority (LPA) to assess information regarding trees at the site as part of the planning submission, and to demonstrate to the LPA that appropriate consideration has been given to the subject of trees as part of the development proposals.
- 1.1.3.** In accordance with *BS 5837: 2012: Trees in Relation to Design, Demolition and Construction - Recommendations* (hereafter referred to as *BS 5837: 2012*), this report sets out to:
- Assess the quality and value of the trees on and immediately adjacent to the site.
 - Identify trees for removal and/or retention, in consideration of the development proposals (where feasible, removals will be restricted to the less significant specimens on site).
 - Prescribe tree protection measures where necessary, which will ensure the successful retention of the retained trees at the site; in accordance with *BS 5837: 2012*, these measures will be further detailed in an Outline Arboricultural Method Statement (AMS).
 - Where necessary, provide preliminary recommendations for mitigation tree planting.
- 1.1.4.** The contents of this report are concerned with arboricultural issues alone; although other disciplines such as engineering and ecology may be referenced, it is important to gain advice from an appropriate expert on these matters.

1.2. Site Details

- 1.2.1.** The site, which is shown in **Fig. 1.1**, below, is centred on OS Grid Reference SE 20849 00940, and lies approximately 2.9 miles south-west of Penistone. The site is accessed west off Gilbert Hill.

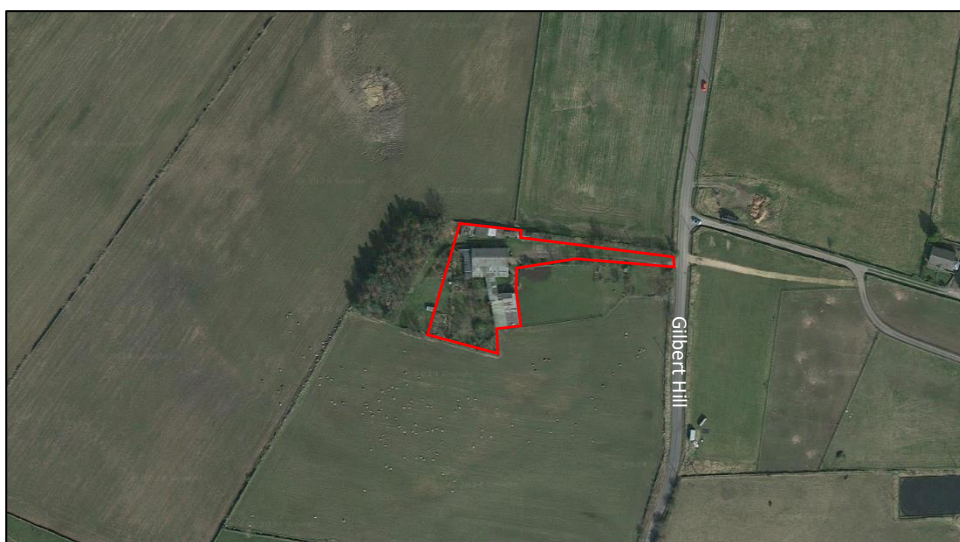


Figure 1.1: Aerial imagery showing the approximate boundaries of the site outlined in red (Google Earth, 2024).

- 1.2.2.** The site covers approximately 0.24 ha, and comprises agricultural and residential buildings, the associated access, and surrounding garden and allotment areas.



- 1.2.3.** The site is bound by agricultural land to the north and south, by Gilbert Hill to the east, and by a 0.14 ha plot of mixed-deciduous and coniferous plantation woodland to the west.

1.3. Site Topography and Elevation

- 1.3.1.** The site lies at an approximate altitude ranging between 305-310 m above sea-level.
- 1.3.2.** The topography of the site is predominantly level.

1.4. Desk Based Study and Planning Context

- 1.4.1.** Cranfield (2024) states that the site and surrounding area consists of *Soilscape 19*; these are very acidic, wet, upland soils, with a peaty surface, that are slowly permeable. No further detailed soil analysis was carried out as part of the survey.
- 1.4.2.** According to information available on the website of Barnsley Metropolitan Borough Council (2024), none of the trees at the site are subject to tree preservation orders (TPOs), and the site is not located within a conservation area.

1.5. Development Proposals

- 1.5.1.** The proposals are to demolish the existing agricultural and residential buildings and erect a new dwelling. Areas of domestic curtilage associated with the existing dwelling are also to be reverted back to open grassland.



2. Methods

2.1. Survey Details

- 2.1.1. The site survey was carried out on Thursday the 9th of May 2024.
- 2.1.2. The weather at time of survey was fine and dry; visibility of the trees was not impeded.

2.2. Survey Personnel

- 2.2.1. The survey was carried out by Jack Delaney. Jack is a Chartered Arboriculturalist (Member of the Institute of Chartered Foresters), and has worked in the arboricultural sector for over 15 years. Jack holds an FdSc in Arboriculture, with distinction, and is a Professional Member of the Arboricultural Association. Jack is also a LANTRA qualified Professional Tree Inspector, and is a trained and registered user of Quantified Tree Risk Assessment (QTRA).

2.3. Survey Methodology

- 2.3.1. Only substantial trees with a stem diameter of 75 mm or above were included as part of the survey, as is recommended in *BS 5837:2012*.
- 2.3.2. The trees were inspected from ground level, using the Visual Tree Assessment (VTA, Mattheck and Breloer, 1994). Although notable defects of trees were recorded, the site survey did not constitute a full tree safety assessment. No specialist decay detection equipment was used as part of the survey, though sounding and probing tools were used where necessary.
- 2.3.3. Tree information was collected in accordance with *BS 5837: 2012*, and includes species, height, diameter at breast height (DBH), crown spread, crown clearance, age class, condition, vitality, and safe useful life expectancy (SULE).
- 2.3.4. Trees were allocated to one of four categories (U, A, B or C) as defined in **Tab. 2.1**, below, to reflect amenity value and suitability for retention, in consideration of the development proposals.

Table 2.1: *BS 5837: 2012 cascade chart (adapted from British Standards, 2012).*

<i>BS 5837: 2012</i> Category	Definition	Retention	Colour code
Category A	Trees of high quality with an estimated remaining life expectancy of at least 40 years; trees that are particularly good examples of their species, especially if rare or unusual.	Highly desirable	Light green
Category B	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years; trees lacking the special quality to merit category A designation.	Desirable	Dark blue
Category C	Trees of low quality with an estimated remaining contribution of at least 10 years, or trees with a stem diameter below 150 mm; unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories.	Feasible, but should be removed if posing a constraint to development	Grey
Category U	Trees that have serious, irremediable, structural and/or physiological defects, including those that will become unviable after removal of other category U trees.	Unfeasible	Red

- 2.3.5. Subcategories 1, 2 and 3 were also given to trees, and reflect arboricultural and landscape qualities, and cultural values, respectively.
- 2.3.6. Tree heights were measured using a clinometer to the 0.5 m; crown spreads were measured to the north, east, south, and west aspects, using a laser measurer to the nearest 0.5 m.



2.3.7. Where access to trees was obstructed or obscured, DBH, height, and crown spread measurements have instead been estimated.

2.3.8. The DBH of trees was measured at 1.5 m above ground level, and rounded to the nearest centimetre. This was then used to calculate the root protection area (RPA) of trees using methods prescribed in *BS 5837:2012*:

- For single stem trees, the RPA was calculated as a circle with a radius 12 times the DBH.
- For trees with 2-5 stems, the combined stem diameter was first calculated using the formula:

$$\sqrt{(\text{Stem 1 DBH})^2 + (\text{Stem 2 DBH})^2 + \dots (\text{Stem 5 DBH})^2}$$

- For trees with 6 or more stems, the combined stem diameter was first calculated using the formula:

$$\sqrt{(\mu \text{ DBH})^2 \times \text{number of stems}}$$

2.4. Constraints

2.4.1. The survey was constrained by the season in which it took place; certain tree pathogens, for example, the fructifications of decay fungi are only visible at specific times of the year.

2.4.2. A topographical plan of the site was not provided for the purpose of the survey; trees have instead been plotted using a combination of land features, manual measurements, and GPS.

2.4.3. A number of trees at the site are situated within dense areas of understorey vegetation, or had dense epicormic or epiphytic plants established on them, which restricted visual inspection. In these instances, defects may be present which could not be inspected in detail.



3. Survey Results and Observations

3.1. Tree Population Observations and Amenity Value

- 3.1.1.** The site survey identified a total of 22 trees and seven groups of trees with the potential to be affected by the development proposals.
- 3.1.2.** The tree species recorded at the site include field maple (*Acer campestre*), Norway maple (*Acer platanoides*), sycamore (*Acer pseudoplatanus*), horse chestnut (*Aesculus hippocastanum*), common alder (*Alnus glutinosa*), grey alder (*Alnus incana*), silver birch (*Betula pendula*), common hazel (*Corylus avellana*), hawthorn (*Crataegus monogyna*), Leyland cypress (*Cupressus x leylandii*), common ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*), European larch (*Larix decidua*), cultivar apple (*Malus domestica*), Scots pine (*Pinus sylvestris*), purple cherry plum (*Prunus cerasifera* 'Pissardi'), cherry laurel (*Prunus laurocerasus*), bird cherry (*Prunus padus*), goat willow (*Salix caprea*), grey willow (*Salix cinerea*), crack willow (*Salix fragilis*), elder (*Sambucus nigra*), rowan (*Sorbus aucuparia*), and English yew (*Taxus baccata*).
- 3.1.3.** The trees at the site are predominantly comprised of young and semi-mature specimens, which individually offer limited amenity value.
- 3.1.4.** A 0.13 ha plot of mixed-deciduous and coniferous plantation woodland is located to the west of the application site. The plantation appears to have received little management since it was established.

3.2. Tree Categorisation

- 3.2.1.** The trees identified during the survey include eight category B trees and two groups of moderate-quality, nine category C trees and five groups of low-quality, and five category U trees with SULEs of 10 years or less.
- 3.2.2.** There were no category A trees of high-quality identified at the site.
- 3.2.3.** A summary of the BS 5837: 2012 categories of trees at the site is given in **Tab. 3.1**, below.

Table 3.1: Summary of BS 5837: 2012 tree categories.

Category	Description	Tree/Group Numbers	Totals
B	Trees of moderate-quality, which should where possible be retained throughout any proposed development	T001, T003, T004, T007, T012, T013, T014, T016 G005, G006	8 Trees 2 Groups
C	Trees of low-quality, which should not be considered a constraint to development	T002, T005, T009, T015, T0017, T018, T019, T020, T022 G001, G002, G003, G004, G007	9 Trees 5 Groups
U	Trees with SULEs of 10 years or less, which should not be considered a constraint to development	T006, T008, T010, T011, T021	5 Trees
Subtotal:			22 Trees 7 Groups

- 3.2.4.** The full results of the survey can be viewed in **Appendix 1: Tree Survey Schedule**. Images of the trees can be viewed in **Appendix 2: Images of Trees**. Tree locations, and the above and below ground constraints posed by trees, can be viewed in **Appendix 4: Tree Constraints Plan**.



4. Impact Assessment

4.1. Tree Removals

- 4.1.1. The development proposals will necessitate the removal of T003 and T016.
- 4.1.2. T003 and T016 are located within proximity of the south elevation of the proposed replacement dwelling. T003 and T016 would therefore require routine pruning in order to maintain sufficient clearance from the property, and as such are not considered retainable in the long-term.
- 4.1.3. T005, T017, T018, T020, and T022 are all located within the curtilage of the existing dwelling, which is proposed to be reverted back to grassland. T005, T017, T018, T020, and T022 are all category C trees of low-quality; the removal of these will be carried out for management reasons, and will benefit the development of the adjacent category B trees which are to be retained.
- 4.1.4. In addition, T006, T008, T010, T011, and T021 - which are all category U trees with SULEs of 10 years or less - are proposed for removal regardless of the proposed development.
- 4.1.5. Although the removal of T003 and T016, which are both category B trees of moderate-quality, is unfortunate, due to the high-levels of existing tree cover at the site, the removal of these is not anticipated to have a significant impact upon the amenity of the site.

4.2. Facilitation Pruning

- 4.2.1. The development proposals do not require facilitation pruning to any of the retained trees at the site.

4.3. Tree Root Protection Areas (RPAs)

- 4.3.1. No tree RPAs will be impacted by the proposed development.
- 4.3.2. The temporary tree protection fencing - detailed in **Section 5** of the **Outline AMS** in **Appendix 3**, and illustrated in the **Tree Protection Plan** in **Appendix 6** - will ensure that the RPAs of the retained trees are suitably protected from development activities.

4.4. Shade Analysis

- 4.4.1. The proposed dwelling is not anticipated to endure significant shading by the adjacent trees.
- 4.4.2. A **Shade Analysis Plan** can be viewed in **Appendix 5**.

4.5. Services and Other Considerations

- 4.5.1. At time of writing, details of proposed service routes have not been provided by the client; however, it is assumed that the existing utilities and drainage at the site will be utilised.
- 4.5.2. If there are any alterations which conflict with tree RPAs however, this should first be reported to the Project Arboriculturalist, so that appropriate measures may be taken.



5. Recommendations

5.1. Tree Removals

- 5.1.1. T003, T005, T006, T008, T010, T011, T016, T017, T018, T020, T021, and T022 will necessitate removal.

5.2. Legal Constraints

- 5.2.1. According to information available on the website of Barnsley Metropolitan Borough Council (2024), T003, T005, T006, T008, T010, T011, T016, T017, T018, T020, T021, and T022 are not subject to TPOs, and the site is not located within a conservation area.
- 5.2.2. Since the allocation of TPOs can be subject to change, tree protection status should be checked and verified with Barnsley Metropolitan Borough Council prior to the commencement of works. Killing or damaging a protected tree is a criminal offence and can result in an unlimited fine.
- 5.2.3. All tree works, including tree removals, should be carried out by a fully insured and suitably qualified arboricultural contractor who is able to comply with *BS 3998: 2010: Tree Works - Recommendations*.
- 5.2.4. Trees provide valuable habitat for wild birds, bats, and many other forms of wildlife. The risks posed to these should be suitably assessed before the recommendations within this report are completed.
- 5.2.5. Under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and the Wildlife and Countryside Act 1981:
- it is an offence to intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or destroy a nest containing eggs or young.
 - it is an offence to intentionally or recklessly damage or destroy a bat roost site, even if the roost is not occupied at the time.

5.3. Tree Protection

- 5.3.1. Construction, and any other works involving excavations, can cause irreversible damage to trees - particularly those which have reached maturity - which are far less capable of adapting to alterations in their surrounding environment. Whilst above-ground injuries are usually obvious, root damage is often concealed, though can have equally devastating impacts to tree health.
- 5.3.2. Direct root damage includes root severance, which can be caused by digging of trenches and ditches, and the stripping of topsoil. Indirect damage may involve the raising of soil levels, alterations in drainage patterns, the laying of impervious surfaces, and soil compaction.
- 5.3.3. Compaction of soils is regarded as the most common cause of death or damage to retained trees on development sites. Soil compaction reduces soil pore space, which in turn reduces soil air, the passage of water and available nutrients. These anaerobic conditions prevent root growth and the proliferation of soil microbes essential to tree health. Symptoms in trees may include crown die-back, sparse and small foliage, and poor extension growth; however, these are usually not evident until well after the occurrence of compaction. Even one pass of a vehicle in wet conditions can cause irreparable soil compaction.
- 5.3.4. To avoid both direct and indirect damage to the roots of the retained trees, temporary tree protection fencing should be installed throughout the development, in the locations shown in the ***Tree Protection Plan***, which can be viewed in ***Appendix 6***.



5.3.5. It is recommended that development works follow the **Outline AMS** provided in **Appendix 3**. This includes the specifications for tree protection fencing and other protective measures to be adhered to throughout the development.

5.3.6. As aspects of the development may be subject to change, the **Outline AMS** should be reviewed by the Project Arboriculturalist prior to the commencement of development works.

5.4. Mitigation

5.4.1. The development proposals will necessitate the removal of two category B trees. Five category C trees and five category U trees will also be removed for site management reasons.

5.4.2. Due to the high-levels of existing tree cover at the site, on-site mitigation tree planting is deemed unnecessary.

5.5. Additional Information

5.5.1. All visual observations and recommendations specified within this document relate to the condition of the trees and surroundings at the time of the survey. As such, any subsequent changes to landform in the proximity of the trees could invalidate the advice given.

5.5.2. Trees are dynamic living organisms, and their condition can change rapidly; the information given in this report is therefore valid for a period of 18 months. This period may be reduced if significant changes occur to the trees, or the ground conditions, which surround them.



References

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Appendices

Appendix 1: Tree Survey Schedule

Table Key					
Tree/Group Ref: Reference numbers, as illustrated in Appendix 4: Tree Constraints Plan			DBH: Diameter at breast height (1.5 m), in millimetres		
Height (Ht.): Overall height of tree, measured to nearest metre			SULE: Safe useful estimated life expectancy of tree, in years		
Crown Spread (CS): Radius of crown to N, E, S, and W aspects, measured to nearest metre			Crown Clearance (CC): Clearance from ground level of lowest branch, measured to nearest metre		
Structural Condition (SC): An assessment of structural condition. G = Good; F = Fair; D = Decaying; C = Collapsing; PD = Physical Defect			Physiological Condition (PC): An assessment of vitality and vigour F = Fair; P = Poor; D = Dead		
Species: Common (and <i>binomial name</i>)			#: Denotes estimated value		
Age	Young (Y): Newly planted or self-seeded tree		Early-mature (EM): Trees in second-third of life expectancy for species type		Over-mature (OM): Mature trees which have entered stages of natural decline
	Semi-mature (SM): Trees in within first-third of life expectancy for species type		Mature (M): Trees in final-third of life expectancy for species type		Veteran (V): Trees of any age, which display ancient characteristics
BS 5837: 2012 Categories	Category A: Trees of high-quality with an estimated remaining life expectancy of at least 40 years, and that are particularly good examples of their species type			Category C: Unremarkable trees of low-quality offering limited arboricultural merit and/or of such impaired condition that they do not warrant in higher categorisation	
	Category B: Trees of moderate-quality with an estimated remaining life expectancy of at least 20 years, though lacking the necessary qualities to warrant Category A designation			Category U: Trees which display serious, irremediable, structural and/or physiological defects	

Individual Trees

Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837:2012 Category	Recommendations
						N	E	S	W						
T001	Common ash (<i>Fraxinus excelsior</i>)	SM	40-80	8	340	4	4.5	3.5	4	0.5	Minor deadwood < 100 mm in diameter scattered throughout crown	F	G	B1	No works recommended
T002	Common ash (<i>Fraxinus excelsior</i>)	Y	20-40	6	130	3	1.5	1.5	2	1	Suppressed by the adjacent trees with asymmetrical crown spread in result.	F	F	C1	No works recommended
T003	Silver birch (<i>Betula pendula</i>)	SM	40-80	10	280	3.5	2.5	3	2.5	1	No obvious significant defects.	G	G	B1	Remove tree
T004	Silver birch (<i>Betula pendula</i>)	SM	40-80	10	300	3.5	3.5	4	3.5	1	No obvious significant defects.	G	G	B1	No works recommended
T005	Silver birch (<i>Betula pendula</i>)	Y	10-20	8	100	1	2	1	0.5	3	Suppressed by adjacent trees with asymmetrical crown spread in result.	F	F	C1	Remove tree



Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837:2012 Category	Recommendations
						N	E	S	W						
T006	Common ash (<i>Fraxinus excelsior</i>)	SM	Dead	7	150	1.5	1.5	1.5	1.5	2	Moribund tree.	D	PD	U	Remove tree
T007	Silver birch (<i>Betula pendula</i>)	SM	40-80	10	240	3.5	3.5	2.5	3.5	1	No obvious significant defects.	G	G	B1	No works recommended
T008	Common ash (<i>Fraxinus excelsior</i>)	SM	Dead	7	170 100	2	2	2	2	2	Moribund tree.	D	PD	U	Remove tree
T009	English yew (<i>Taxus baccata</i>)	SM	40-80	4	100 90	1.5	0.5	1	1.5	0	No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	G	F	C1	No works recommended
T010	Common ash (<i>Fraxinus excelsior</i>)	Y	< 5	7	160	2.5	2.5	1.5	1	2	Displays advanced symptoms of chalara ash dieback (<i>Hymenoscyphus fraxineus</i>), with crown tip dieback and deadwood < 100 mm throughout the crown.	P	F	U	Remove tree
T011	Common ash (<i>Fraxinus excelsior</i>)	Y	< 5	6	120	2	2	1.5	1.5	2	Displays advanced symptoms of chalara ash dieback (<i>Hymenoscyphus fraxineus</i>), with crown tip dieback and deadwood < 100 mm throughout the crown.	P	F	U	Remove tree
T012	Silver birch (<i>Betula pendula</i>)	SM	40-80	10	260	3.5	4	4	2.5	1	No obvious significant defects.	G	G	B1	No works recommended
T013	Silver birch (<i>Betula pendula</i>)	SM	40-80	11	240	4	3	3.5	2	1.5	No obvious significant defects.	G	G	B1	No works recommended
T014	Silver birch (<i>Betula pendula</i>)	SM	40-80	9	250	3.5	3	3	2	1	Longitudinal cavity on north aspect of main stem from 0.5-2 m, with extensive adaptive growth forming around defect margins.	G	PD	B1	No works recommended
T015	Common ash (<i>Fraxinus excelsior</i>)	Y	40-80	8	170	2.5	2.5	2.5	2.5	2	No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	G	G	C1	No works recommended



Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	PC	SC	BS 5837:2012 Category	Recommendations
						N	E	S	W						
T016	Common alder (<i>Alnus glutinosa</i>)	SM	40-80	8	280	4	3.5	3.5	3.5	1.5	Bifurcates at 1 m into three co-dominant primary stems; unions appear structurally optimised.	G	G	B1	Remove tree
T017	Bird cherry (<i>Prunus padus</i>)	Y	20-40	9.5	150	2	2	2	2	1.5	No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	G	G	C1	Remove tree
T018	Common alder (<i>Alnus glutinosa</i>)	SM	20-40	6	230	3	1	3	2.5	1.5	Bifurcates at 0.5 m into three co-dominant primary stems; unions are acute and are possibly included. One primary branch has historically been removed at 1 m, with residual 30 cm branch stub.	G	PD	C1	Remove tree
T019	Cultivar apple (<i>Malus domestica</i>)	SM	20-40	7	170 150	3	3.5	3	2.5	0.5	Bifurcates at ground level into two co-dominant primary stems. No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	F	F	C1	No works recommended
T020	Common ash (<i>Fraxinus excelsior</i>)	Y	40-80	8	180	3	3	3	2.5	1.5	No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	G	G	C1	Remove tree
T021	Common ash (<i>Fraxinus excelsior</i>)	Y	< 5	8	160	2	3	2	1.5	2	Displays advanced symptoms of chalara ash dieback (<i>Hymenoscyphus fraxineus</i>), with crown tip dieback and deadwood < 100 mm throughout the crown.	P	F	U	Remove tree
T023	Grey willow (<i>Salix cinerea</i>)	SM	10-20	8	170	3	3	2	2	2	Branch tear-out wound at circa 3 m on north aspect of main stem; residual wound extends 20 cm downwards into parent stem.	F	PD	C1	Remove tree



Groups of Trees

Group Ref:	Species Composition	Age	SULE	Av. Ht.	Av. DBH	Approx. No. of Stems	CC	Comments	V	SC	BS 5837:2012 Category	Recommendations
G001	Common ash (<i>Fraxinus excelsior</i>) Leyland cypress (<i>Cupressus x leylandii</i>) Goat willow (<i>Salix caprea</i>) Silver birch (<i>Betula pendula</i>) Hazel (<i>Corylus avellana</i>) Common alder (<i>Alnus glutinosa</i>) Bird cherry (<i>Prunus padus</i>) Purple cherry plum (<i>Prunus cerasifera</i> 'Pissardi') Crack willow (<i>Salix fragilis</i>)	Y SM	20-40	12	360	35	1	Linear group of trees bordering track. Trees to east of group have historically been topped for clearance to overhead powerlines.	F	F	C1	No works recommended
G002	Field maple (<i>Acer campestre</i>)	SM	40-80	7	280	3	0	No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	G	F	C1	No works recommended
G003	Field maple (<i>Acer campestre</i>) Common hawthorn (<i>Crataegus monogyna</i>) Cultivar apple (<i>Malus domestica</i>)	Y SM	20-40	8	310	30	2	Linear group of trees bordering track. Several ash display advanced symptoms of chalara ash dieback (<i>Hymenoscyphus fraxineus</i>).	F	F	C1	No works recommended



Group Ref:	Species Composition	Age	SULE	Av. Ht.	Av. DBH	Approx. No. of Stems	CC	Comments	V	SC	BS 5837:2012 Category	Recommendations
	Grey willow (<i>Salix cinerea</i>) Hazel (<i>Corylus avellana</i>) Common ash (<i>Fraxinus excelsior</i>) Laurel cherry (<i>Prunus laurocerasus</i>) Elder (<i>Sambucus nigra</i>) Bird cherry (<i>Prunus padus</i>) Common holly (<i>Ilex aquifolium</i>) Common alder (<i>Alnus glutinosa</i>) Sessile oak (<i>Quercus petraea</i>)											
G004	Common ash (<i>Fraxinus excelsior</i>) Silver birch (<i>Betula pendula</i>) Cultivar apple (<i>Malus domestica</i>)	Y SM	20-40	8	200	6	1	Linear group on southern boundary of garden allotment. No obvious significant defects, the lacks qualities for higher BS 5837 categorisation.	F	F	C1	No works recommended
G005	Common ash (<i>Fraxinus excelsior</i>) Sycamore (<i>Acer pseudoplatanus</i>) Common hawthorn (<i>Crataegus monogyna</i>)	SM	40-80	10	320	13	1.5	Group of trees adjacent to area pond. Multiple trees have ivy (<i>Hedera helix</i>) established throughout the crowns, which obscures tree features and potential defects.	F	F	B1	No works recommended



Group Ref:	Species Composition	Age	SULE	Av. Ht.	Av. DBH	Approx. No. of Stems	CC	Comments	V	SC	BS 5837:2012 Category	Recommendations
G006	European larch (<i>Larix decidua</i>) Grey alder (<i>Alnus incana</i>) Crack willow (<i>Salix fragilis</i>) Hazel (<i>Corylus avellana</i>) Grey willow (<i>Salix cinerea</i>) Scots pine (<i>Pinus sylvestris</i>) Common holly (<i>Ilex aquifolium</i>) Common ash (<i>Fraxinus excelsior</i>) Horse chestnut (<i>Aesculus hippocastanum</i>) Common hawthorn (<i>Crataegus monogyna</i>) Cultivar apple (<i>Malus domestica</i>) Sitka spruce (<i>Picea sitchensis</i>) Silver birch (<i>Betula pendula</i>) Field maple (<i>Acer campestre</i>) Rowan (<i>Sorbus aucuparia</i>)	Y SM	40-80	14	340	4	2	Mixed-deciduous and coniferous plantation woodland. Multiple windblown and standing dead trees within internal areas. Multiple trees display features typical of the woodland setting, including leaning main stems and asymmetrical forms, acute primary and secondary unions, and branch cavities and tear-out wounds.	F	PD	B1	No works recommended



Group Ref:	Species Composition	Age	SULE	Av. Ht.	Av. DBH	Approx. No. of Stems	CC	Comments	V	SC	BS 5837:2012 Category	Recommendations
G007	Silver birch (<i>Betula pendula</i>) Norway maple (<i>Acer platanoides</i>) Grey willow (<i>Salix cinerea</i>) Common holly (<i>Ilex aquifolium</i>)	Y SM	20-40	7	200	10	1	Group of self-seeded and predominantly multiple-stemmed trees. No obvious significant defects, though lacks qualities for higher BS 5837 categorisation.	F	F	C1	No works recommended



Appendix 2: Images of Trees



Plate 1: T001



Plate 2: T002



Plate 3: T003



Plate 4: T004



Plate 5: T005



Plate 6: T006



Plate 7: T007



Plate 8: T008



Plate 9: T009



Plate 10: T010



Plate 11: T011



Plate 12: T012, T013, & T014 (left to right)



Plate 13: T015



Plate 14: T016



Plate 15: T017



Plate 16: T018



Plate 17: T019



Plate 18: T020



Plate 19: T021



Plate 20: T022



Plate 21: G001



Plate 22: G002



Plate 23: G003



Plate 24: G004



Plate 25: G005



Plate 26: G006



Plate 27: G007



Appendix 3: Outline Arboricultural Method Statement (AMS)

A3.1 Introduction

- A3.1.1** Woodsage Consulting Ltd have been instructed by Mrs J Birkett to produce an Outline AMS in relation to the proposed development of the land at Birkland Farm, Fulshaw Lane, Penistone S36 9FD.
- A3.1.2** The proposals are to demolish the existing agricultural and residential buildings and erect a new dwelling. Areas of domestic curtilage associated with the existing dwelling are also to be reverted back to open grassland.
- A3.1.3** This Outline AMS should be read in conjunction with the Arboricultural Impact Assessment (Ref: WC-276.1a).

A3.2 Timing of Works

- A3.2.1** It is not the Project Arboriculturist's role to determine the timing and implementation of works on site however, an input into the process can avoid issues once work is underway.
- A3.2.2** The phasing of works should be carried out in accordance with **Tab. A3.1**, below.

Table A3.1: *Timing of Works.*

Stage	Works
1	Site induction
2	Carry out tree removals
3	Install temporary tree protection fencing, in the locations shown in the Tree Protection Plan
4	Inspection of tree protection measures by the Project Arboriculturist
5	Carry out demolition and construction works
6	Remove tree protection fencing once construction works have been completed
7	Carry out soft-landscaping
8	Final inspection by the Project Arboriculturist

A3.3 Site Supervision

- A3.3.1** Prior to works commencing, it is the responsibility of the main contractor, or assigned agent, to ensure that details regarding tree protection are understood and adhered to by all site personnel.
- A3.3.2** During the site induction, the final AMS, and a copy of the **Tree Protection Plan** - which can be found in **Appendix 6** - should be made available to all contractors attending the site.

A3.4 Tree Removals

- A3.4.1** Prior to works commencing, T003, T005, T006, T008, T010, T011, T016, T017, T018, T020, T021, and T022 will necessitate removal.
- A3.4.2** According to information available on the website of Barnsley Metropolitan Borough Council (2024), T003, T005, T006, T008, T010, T011, T016, T017, T018, T020, T021, and T022 are not subject to TPOs, and the site is not located within a conservation area. However, since the allocation of TPOs can be subject to change, tree protection status should be checked and verified with Barnsley Metropolitan Borough Council prior to the commencement of works. Killing or damaging a protected tree is a criminal offence and can result in an unlimited fine.
- A3.4.3** All tree works, including tree removals, should be carried out by a fully insured and suitably qualified arboricultural contractor who is able to comply with *BS 3998: 2010: Tree Works - Recommendations*.



A3.4.4 Trees provide valuable habitat for wild birds, bats, and many other forms of wildlife. The risks posed to these should be suitably assessed before the recommendations within this report are completed.

A3.5 Tree Protection Fencing

A3.5.1 Tree protection barriers shall be installed prior to the commencement of development works, and should be fit for the purpose of excluding site personnel and machinery. The default specification should be in accordance with *BS 5837: 2012*.



Figure A3.1: Example of mesh welded type barriers in-situ.

A3.5.2 Specification: Barriers shall be a minimum 2 m high, and should consist of a vertical and horizontal scaffold framework, well braced to resist impacts, as illustrated in **Fig. A3.1**, above, and **Fig. A3.2**, below.

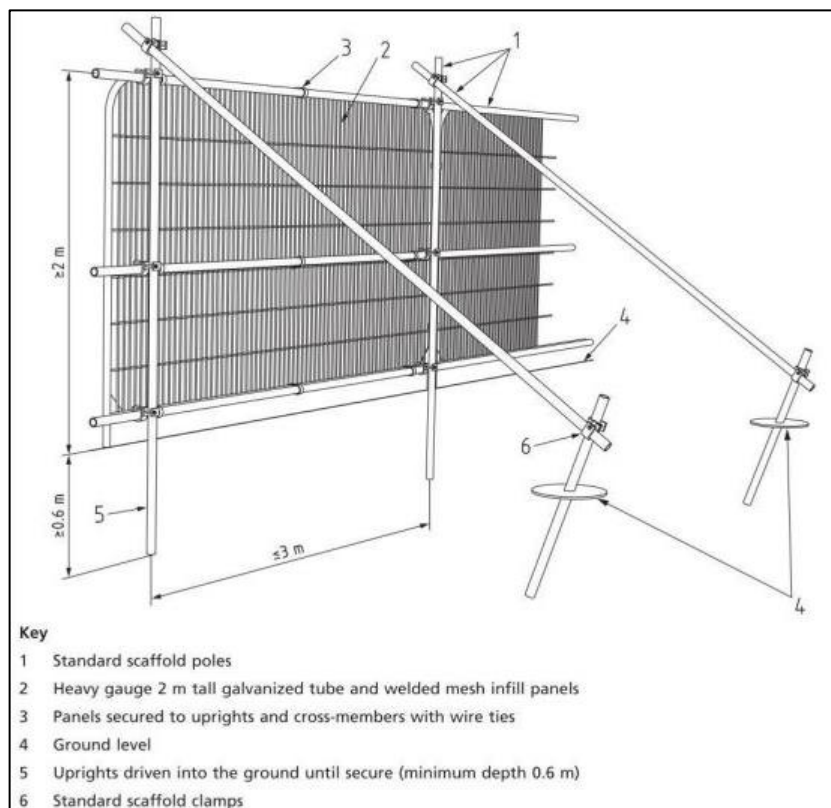


Figure A3.2: Temporary 2 m steel protective fencing.



- A3.5.3** The vertical tubes shall be spaced at a minimum interval of 3 m and driven securely into the ground. Onto this framework, welded mesh panels should be securely fixed.
- A4.5.4** All-weather notices shall be attached to the barriers at 9 m intervals with the words 'TREE PROTECTION ZONE - NO ACCESS' clearly visible.
- A4.5.5** **Location:** The temporary tree protection fencing should be installed prior to development works commencing, in the locations shown in the **Tree Protection Plan**, and shall remain in place throughout the demolition and construction phases.
- A4.5.6** The protected areas should be regarded as sacrosanct, and once installed, tree protection fencing should not be removed or altered without prior consultation with the Project Arboriculturist.
- A4.5.7** If any breach in the tree protection fencing occurs, it is the Site Manager's responsibility to report this to the Project Arboriculturalist, so that appropriate measures may be taken. Any breach which results in death or damage to the trees could result in a criminal offence being committed.

A3.6 Additional Details

- A3.6.1** No materials hazardous to tree health, such as oil, bitumen or cement should be stored within the protective fencing. Where possible this area should be extended to 10 m away from the fencing.
- A3.6.2** Where there is a risk of polluted water runoff into root protection areas (RPAs), heavy duty plastic sheeting and sandbags must be used to contain any spillages and prevent contamination. No fires should be lit within 20 m of the protective fencing.
- A3.6.3** As the majority of tree roots are typically found within the first 100 cm of ground level - particular attention should also be paid to existing levels - which should be observed and maintained within tree RPAs.
- A3.6.4** Any unavoidable excavations into the soil within RPAs should be carried out by use of hand-operated tools only, and only under prior approval of the Project Arboriculturalist. If roots are encountered which occur in clumps, or which are greater than 25 mm in diameter, these should not be severed without first consulting the Project Arboriculturalist.

A3.7 Responsibility and Site Management

- A3.7.1** It is the responsibility of the main contractor or assigned agent to ensure that details regarding tree protection are understood and followed by all site personnel.
- A3.7.2** Inspections by the Project Arboriculturalist are to be undertaken at the following stages:
1. Once the tree protection fencing has been installed – in the locations shown in the **Tree Protection Plan** – and prior to demolition works commencing.
 2. Upon completion of the development works.
- A3.7.3** After each inspection, a letter should be submitted by the Project Arboriculturalist to the LPA Arboricultural Officer, to confirm if the method statement has been followed correctly, and if trees have not been adversely affected by development works.

A3.8 Project Arboriculturalist Contact Details

Mr Jack Delaney
Woodsage Consulting Ltd
Unit 2, Hey End Farm,
Shield Hall Lane,
Luddendenfoot,



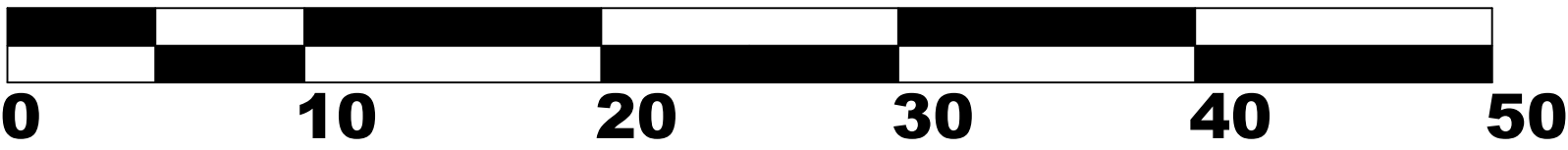
West Yorkshire HX2 6JN

Tel: 07962401997

Email: info@woodsage.co.uk

Birkland Farm, Fulshaw Lane, Penistone S36 9FD
WC-276.1a
Arboricultural Impact Assessment

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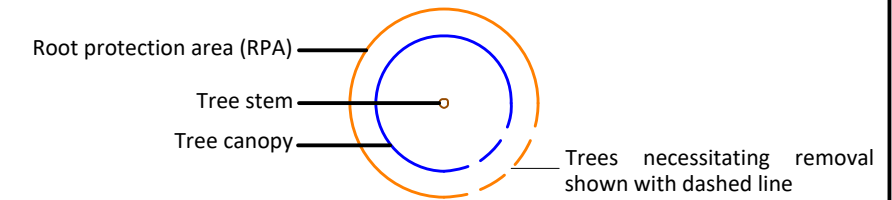
Appendix 4:
Tree Constraints Plan

Project:	Birkland Farm, Fulshaw Ln, Penistone S36 9FD
Drawn by:	Jack Delaney
Date:	14th May 2024
Scale:	1:250 @ A1
Drawing Number:	WC-276.1a.4

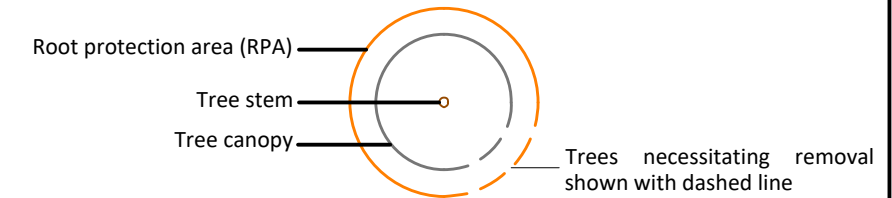
Do not scale off this drawing - to be reproduced in colour only

Map Key:

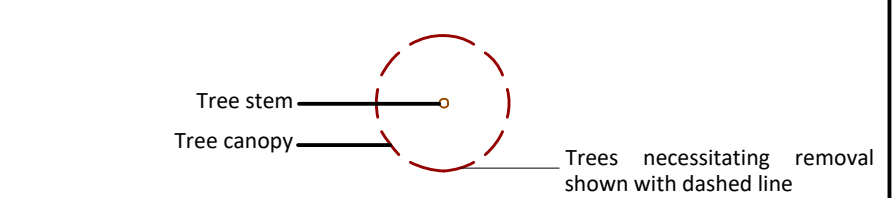
Category B trees/groups of moderate-quality



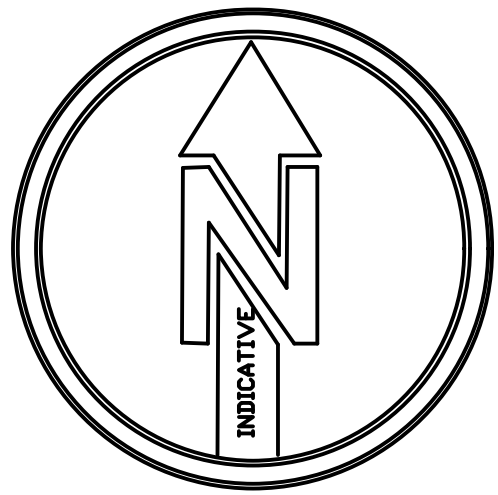
Category C trees/groups of low-quality



Category U trees with SULEs of < 10 years

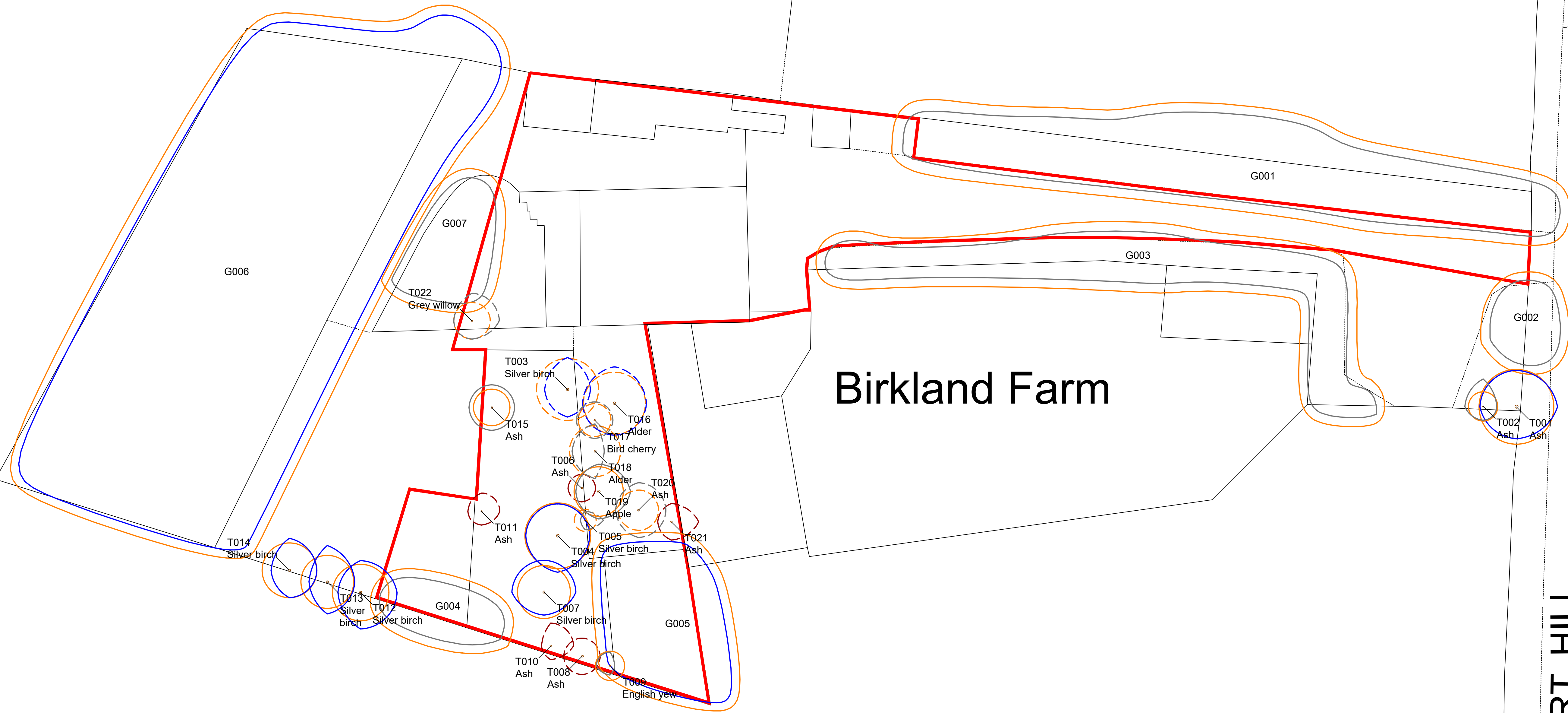


Application boundary

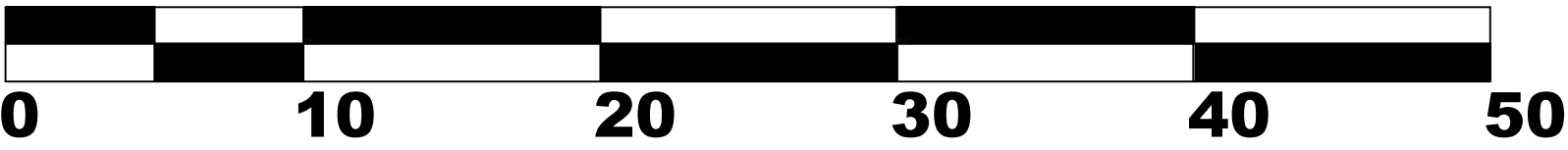


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Birkland Farm



SCALE BAR 1:250



Appendix 5:
Shade Analysis Plan

Project:	Birkland Farm, Fulshaw Ln, Penistone S36 9FD
Drawn by:	Jack Delaney
Date:	14th May 2024
Scale:	1:250 @ A1
Drawing Number:	WC-276.1a.5

Do not scale off this drawing - to be reproduced in colour only

Map Key:

Category B trees/groups of moderate-quality

Root protection area (RPA)

Tree stem

Tree canopy

Predicted current daily shade arc

Category C trees/groups of low-quality

Root protection area (RPA)

Tree stem

Tree canopy

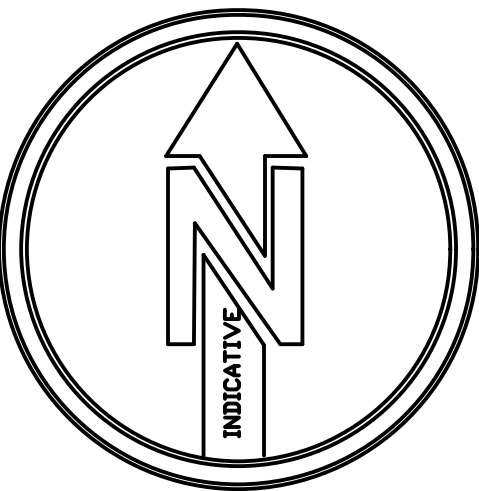
Predicted current daily shade arc

Application boundary

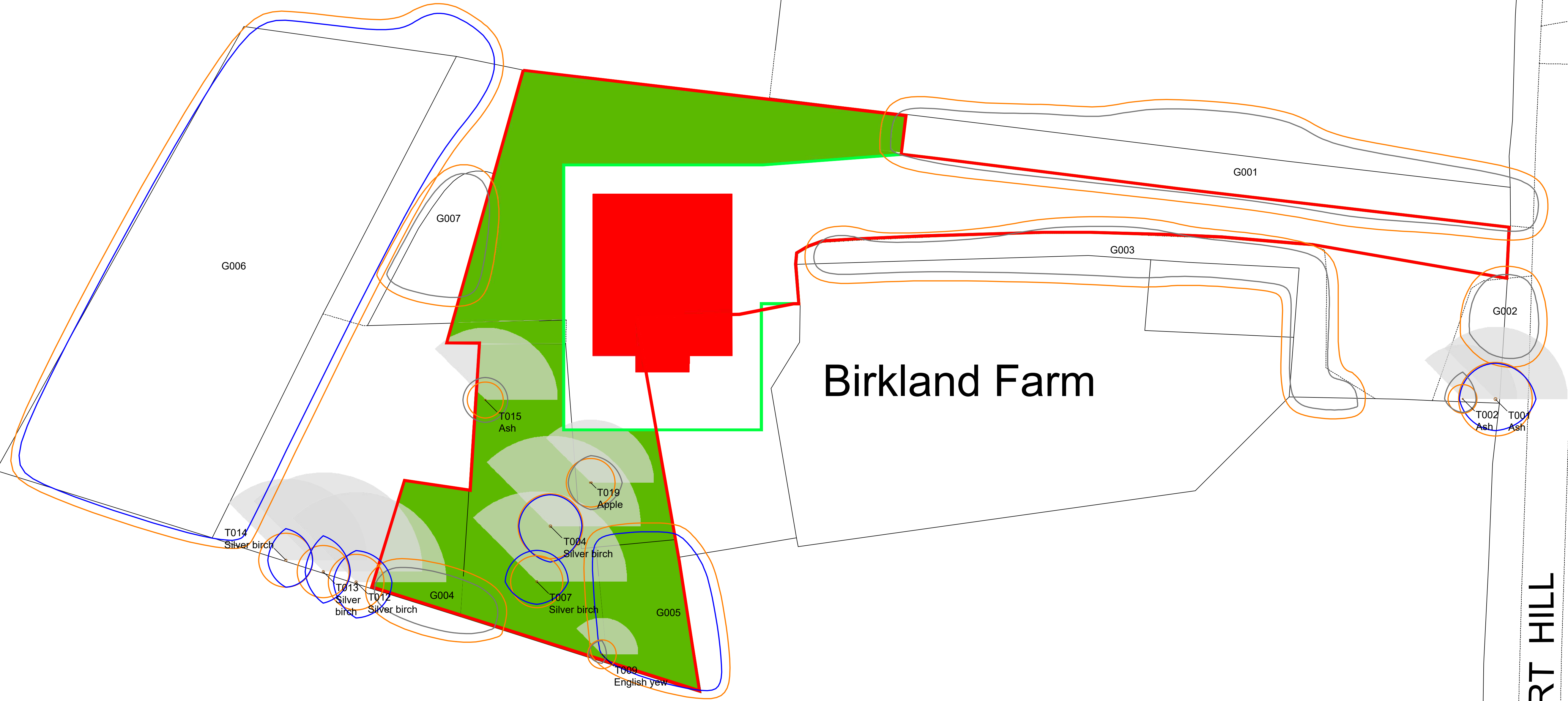
Denotes proposed domestic curtilage and access to proposed replacement dwelling

Proposed footprint of replacement dwelling

Denotes existing domestic curtilage associated with dwelling, which is to be reverted back to open grassland

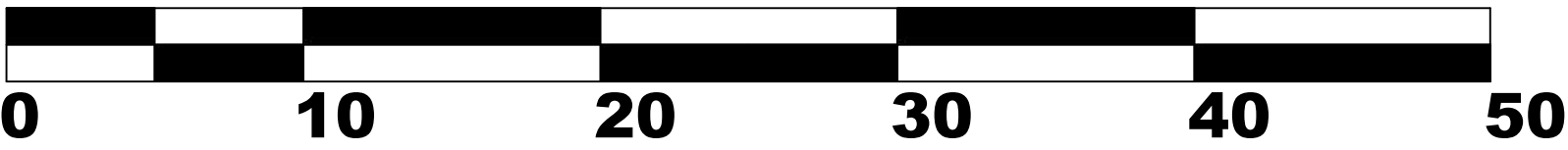


GILBERT HILL



Woodsage Consulting Ltd
T: 07962401997
E: info@woodsage.co.uk
W: <https://woodsage.co.uk>

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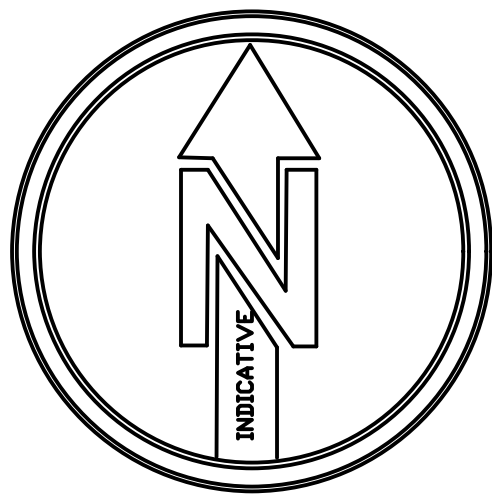
Appendix 6:
Tree Protection Plan

Project:	Birkland Farm, Fulshaw Ln, Penistone S36 9FD
Drawn by:	Jack Delaney
Date:	14th May 2024
Scale:	1:250 @ A1
Drawing Number:	WC-276.1a.6

Do not scale off this drawing - to be reproduced in colour only

Map Key:

Category B trees/groups of moderate-quality	
Root protection area (RPA)	
Tree stem	
Tree canopy	
Category C trees/groups of low-quality	
Root protection area (RPA)	
Tree stem	
Tree canopy	
	Application boundary
	Denotes proposed domestic curtilage and access to proposed replacement dwelling
	Existing buildings to be demolished
	Proposed replacement dwelling footprint
	Denotes existing domestic curtilage associated with dwelling, which is to be reverted back to open grassland
	Temporary tree protection fencing, to BS 5837: 2012 specification, as detailed in the Outline Arboricultural Method Statement (AMS)



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Birkland Farm

