

Arboricultural Method Statement

WC-178.2a

50 Birkby Lodge Road, Huddersfield HD2 2BG



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Client:	Mr. Jamil Akhtar
Site address	50 Birkby Lodge Road, Huddersfield HD2 2BG
Grid reference:	SE 13489 17964
Report prepared by:	Jack Delaney MICFor MArborA
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1. Introduction

1.1. Introduction and Scope of Report

- 1.1.1.** Woodsage Consulting Ltd have been instructed by Mr Jamil Akhtar to produce an Arboricultural Method Statement (AMS) in relation to the proposed development of the land at 50 Birkby Lodge Road, Huddersfield HD2 2BG.
- 1.1.2.** An AMS is usually required when the implementation of any aspect of a development has the potential to result in the loss of or damage to a tree that is to be retained.
- 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 AMS will prescribe the necessary tree protection measures which will ensure the successful retention of the retained trees at the site throughout the proposed development.
- 1.1.4.** This AMS is based upon the supporting information that accompanies the planning application (Application Number: 2023/62/92266/W).
- 1.1.5.** An arboricultural survey in accordance with *BS 5837:2012* and accompanying Arboricultural Impact Assessment (Report Ref: WC-178.1a) were carried out by Woodsage Consulting Ltd in July 2023, which serve to inform this AMS.
- 1.1.6.** The contents of this AMS 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. Development Proposals

- 1.2.1.** An initial planning application (2023/62/90775/W) to erect two single-story extensions to the side and front of the existing dwelling was given conditional full permission on the 19th of May 2023.
- 1.2.2.** The applicant now intends to construct a new driveway which will access the property via an existing public right of way (PROW) to the east of the site.



2. Arboricultural Method Statement

2.1. Timing of Works

- 2.1.1. 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 help avoid issues once work is underway. The phasing of works should be carried out in accordance with **Tab. 2.1**, below.

Table 2.1: *Timing of Works.*

Stage	Works
1	Site induction
2	Install temporary tree protection fencing
3	Inspection of tree protection measures by Project Arboriculturist
4	Remove existing section of boundary wall, using hand-operated tools only
5	Install driveway (to be constructed upon a geo-cellular confinement system)
6	Install post and rail fencing
7	Remove tree protection fencing
8	Final inspection by Project Arboriculturist

2.2. Site Supervision

- 2.2.1. 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.
- 2.2.2. During the site induction, this AMS, and a copy of the **Tree Protection Plan** - provided in **Appendix 2** - should be made available to all contractors attending the site.

2.3. Tree Works

- 2.3.1. The development proposals do not require any tree removals or facilitation pruning.

2.4. Tree Protection Fencing

- 2.4.1. 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**.
- 2.4.2. **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 is illustrated in **Fig. 2.1**, below, and in **Fig. 2.2**, on the following page.
- 2.4.3. The vertical tubes should 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.



Figure 2.1: *Example of mesh welded type barriers in-situ.*



- 2.4.4. All-weather notices should be attached to the barriers at 9 m intervals with the words 'TREE PROTECTION ZONE - NO ACCESS' clearly visible.

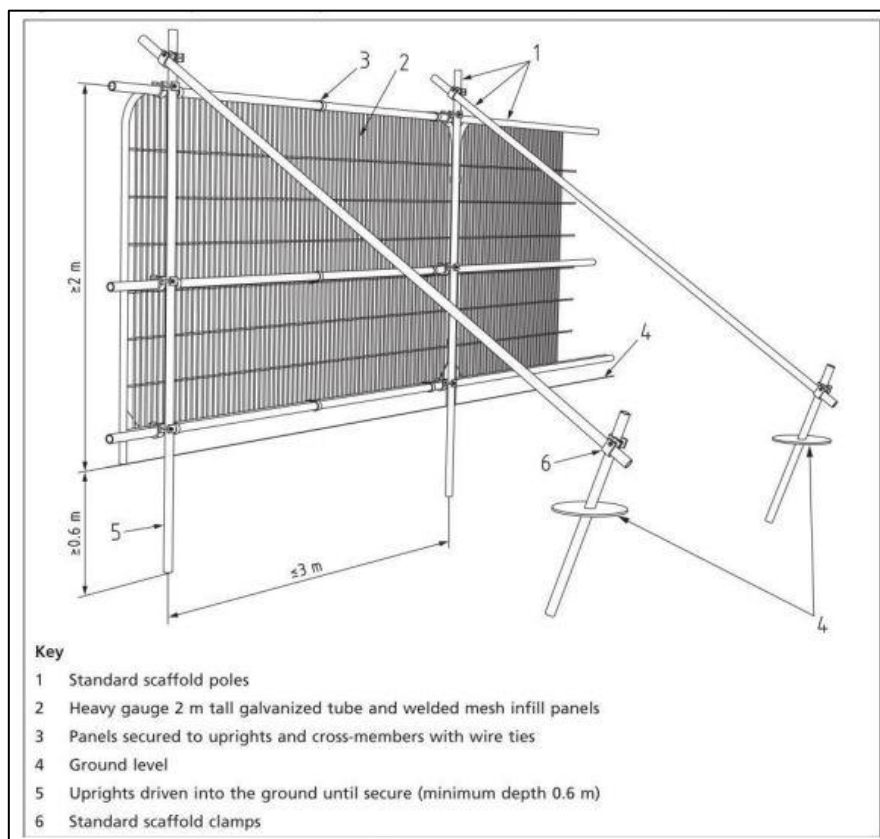


Figure 2.2: Temporary 2 m steel protective fencing.

- 2.4.5. **Location:** Temporary tree protection fencing should be installed prior to development works commencing, in the locations shown in the **Tree Protection Plan**.
- 2.4.6. The protected area should be regarded as sacrosanct, and once installed, tree protection fencing should not be removed or altered without prior consultation with the Project Arboriculturist.
- 2.4.7. If any breach in the tree protection measures occurs it is the Site Manager's responsibility to report this to the Project Arboriculturist, so the appropriate measures may be taken. Any breach in the tree protection resulting in the death or damage to trees, could result in a criminal offence being committed.

2.5. Additional Details

- 2.5.1. 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.
- 2.5.2. Where there is a risk of polluted water runoff into 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.
- 2.5.3. 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.



2.6. Development Works within Tree Root Protection Areas (RPAS)

- 2.6.1. In order to create an opening for the proposed driveway, a section of an existing boundary wall within the RPA of T001 will require removal.
- 2.6.2. To minimise the impacts upon tree roots, removal of the wall should be carried out using hand-operated tools only; existing levels beneath the lowest course of the wall shall remain undisturbed.
- 2.6.3. Any unavoidable excavations into the soil within the RPA of T002 should be carried out by use of hand-operated tools only, and only under prior approval of the Project Arboriculturalist. No roots which are greater than 25 mm in diameter should be severed without first consulting the Project Arboriculturalist.

2.7. Geo-cellular Confinement

- 2.7.1. The proposed driveway should be constructed upon a geo-cellular confinement system (recommended products include Cellweb[®] and Terram Geocell[®]).
- 2.7.2. A cross-sectional diagram illustrating the installation of a Cellweb[®] geo-cellular confinement system can be viewed in **Fig. 2.3**, below.

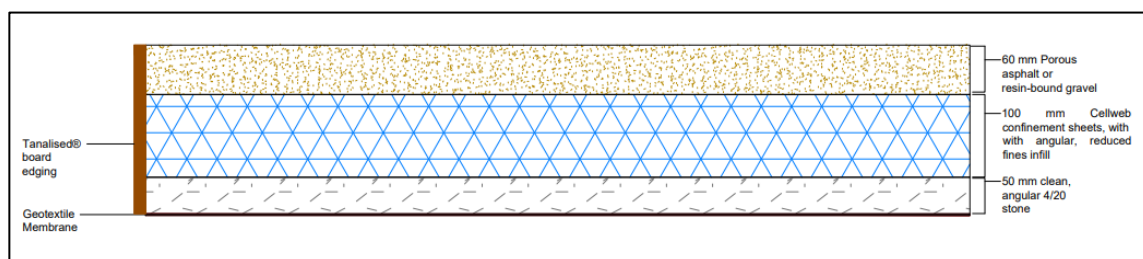


Figure 2.3: Cross-sectional diagram of the proposed Cellweb[®] confinement.

- 2.7.3. Installation of geo-cellular confinement should be carried out using a “no-dig” technique, and should adhere to the following guidelines:
 - 1. Clear existing vegetation and any other protruding objects from the surface using hand-operated tools only. The geo-cellular confinement system does not require any further excavation into the soil.
 - 2. Fill any major hollows with a granular material that will remain gas and water-permeable throughout its design life.
 - 3. Cover surface with a non-woven, geotextile separation filtration layer, with a minimum thickness of 300g/m² and a CBR puncture resistance of 4000 N. Geotextiles made from recycled products are becoming increasingly available and can be used in the geo-cellular confinement system providing it has a sufficient tensile strength and puncture resistance.
 - 4. Apply 50 mm clean, angular 4/20 or 20/40 base aggregate.
 - 5. Apply 100 mm Cellweb[®] geo-cellular confinement sheets and infill with 4/20 or 20/40 aggregate (refer to **Fig. 2.4**, on the following page). The infill material should be washed or graded, so that it contains no fine material (fines). The amount of infill that will be required can be estimated using the following equations:
 - **Quantity of 4/20 stone infill required = m² of coverage x depth of geocells (m) x 2 tonnes**
 - **Quantity of 20/40 stone infill required = m² of coverage x depth of geocells (m) x 1.8 tonnes**



6. Edging is not necessary for the geo-cellular confinement system, but will be required to retain the surface dressing. In this instance, tanalised[®] board edging will be appropriate, and should be installed directly on top of existing grade levels. The edging boards shall be held in place with track or road pins placed at 1 m intervals.
7. The edging and supporting pins shall then be concealed by grading into the adjoining levels, using good quality topsoil.
8. Install 60 mm permeable surface dressing on top of the Cellweb[®] geo-cellular confinement sheets; for example, porous asphalt or resin-bound gravel.



Figure 2.4: Cellweb[®] geo-cellular confinement sheets being infilled with 4/20 mm clean, angular stone.

- 2.7.4.** Since the majority of tree roots are typically found within the first 100 cm of ground level, particular attention should be paid to existing levels, and no excavations should be carried out within the RPAs of T001 and T002 during the installation of the geo-cellular confinement system without first consulting the Project Arboriculturalist.

2.8. Installation Method Statement for Permanent Fencing with Tree RPAs

- 2.8.1.** Boundary fencing is proposed as part of the development and will pass through the RPA of T001.

- 2.8.2.** Installation of permanent fencing within tree RPAs should adhere to the following guidelines:

1. No part of any fencing is to be attached to the adjacent trees.
2. The post dimensions are to be a maximum of 100 mm x 100 mm; holes are to be hand-dug to a depth of 600 mm.
3. If significant roots with a diameter greater than 25 mm are encountered, posts will be repositioned. No roots with a diameter greater than 25 mm diameter shall be severed without first consulting with the Project Arboriculturalist. If roots under this diameter are present, these will be pruned using an appropriate sharp pruning tool such as pruning saw or secateurs. Any temporarily exposed roots will be covered with sharp sand.
4. Posts will be set in concrete and in holes lined with polythene to minimise leaching.
5. Concrete will be mixed outside of tree RPAs and transported to site.



2.9. Services

- 2.9.1.** Any alterations to the existing underground services and/or soak-aways should be installed outside of the RPAs of the retained trees. If there are any areas of conflict however, these should first be reported to the Project Arboriculturalist or the LPA Arboricultural Officer, so that appropriate measures may be taken.

2.10. Equipment and Material Storage

- 2.10.1.** No materials hazardous to tree health, such as oil, bitumen or cement should be stored within the protective fencing. A suitable location for the storage of materials and equipment – that is away from tree RPAs - is shown in the ***Tree Protection Plan***.

2.11. Responsibility and Site Management

- 2.11.1.** 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.
- 2.11.2.** It is recommended that inspections by the Project Arboriculturalist are undertaken at the following stages:
1. Once temporary tree protection fencing has been installed – in the locations shown in the ***Tree Protection Plan*** - to determine if these measures are satisfactory.
 2. During ground preparation works, for the installation of the geo-cellular confinement.
 3. Upon completion of the development works.
- 2.11.3.** After each inspection, a letter should be submitted by the Project Arboriculturalist to the LPA Arboricultural Officer, to confirm if the AMS has been followed correctly, and if trees have not been adversely affected by development works.

2.12. Project Arboriculturalist Details:

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Appendices

Appendix 1: Tree Survey Schedule

Table Key					
Tree/Group Ref: Reference numbers, as illustrated in Appendix 2: Tree Protection Plan			DBH: Diameter at breast height (1.5m), 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			Vitality (V): An assessment of physiological condition for species and age of tree. 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		
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	V	SC	BS 5837:2012 Category	Recommendations
						N	E	S	W						
T001	Common Ash (<i>Fraxinus excelsior</i>)	M	40-80	21	750	7.5	7.5	8.5	8	2.5	Bifurcates at 2.5 m into two co-dominant stems; union appears structurally optimised. Minor deadwood < 100 mm in diameter scattered throughout crown. Section of deadwood approx. 4 m in length at 7 m in south aspect of crown.	F	F	B2	No works recommended
T002	Lawson Cypress (<i>Chamaecyparis lawsoniana</i>)	M	10-20		630 470 350	4	4.5	4.5	4	4	Bifurcates at ground level into three co-dominant stems; unions are very acute and likely included. Smallest stem has been previously removed.	F	PD	C1	No works recommended
T003	Norway Maple (<i>Acer platanoides</i>)	SM	10-20	8	310	2.5	1.5	3.5	3.5	4	Positioned on adjacent property to east of site, approximately 1.5 m above site levels. Suppressed by adjacent tree with asymmetrical crown spread to south-west in result. Minor	P	F	C1	No works recommended



Tree Ref:	Species	Age	SULE	Ht.	DBH	CS				CC	Comments	V	SC	BS 5837:2012 Category	Recommendations
						N	E	S	W						
											crown tip dieback. Dense ivy established on main stem and structural branches, obscuring tree features and potential defects				
T004	Horse Chestnut (<i>Aesculus hippocastanum</i>)	SM	40-80	15	480	6	4	2	5	2.5	Positioned on adjacent property to east of site, approximately 1.5 m above site levels. Suppressed by adjacent tree with asymmetrical crown spread to north in result. Minor crown tip dieback. Dense ivy established on main stem and structural branches, obscuring tree features and potential defects	F	PD	B1	No works recommended
T005	Horse Chestnut (<i>Aesculus hippocastanum</i>)	OM	5-10	10	610	6	3.5	4	3.5	3.5	Positioned on adjacent property to east of site, approximately 1 m above site levels. Extensive crown tip dieback, with multiple structural branches having previously failed and extensive decay at points of failure. <i>Pleurotus ostreatus</i> fructifications on main stem and structural branches.	F	G	C1	No works recommended

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>) Sycamore (<i>Acer pseudoplatanus</i>)	Y SM	40-80	20	420	15	2	Woodland edge group positioned on adjacent property. Dense ivy established on trees throughout group, obscuring tree features and potential defects	F	F	B1	No works recommended

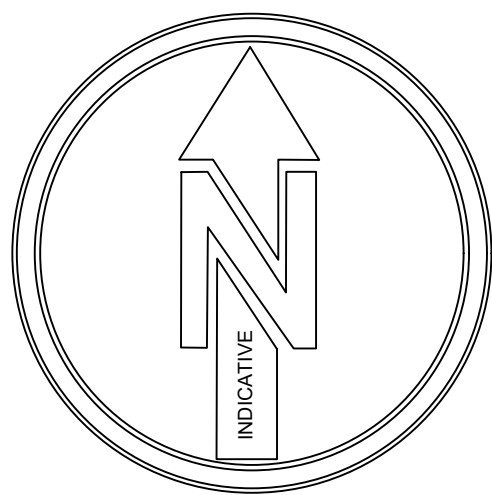
Appendix 2:
Tree Protection Plan

Project:	50 Birkby Lodge Road, Huddersfield HD2 2BG
Drawn by:	Jack Delaney
Date:	27th December 2023
Scale:	1:100 @ A1
Drawing Number:	WC-178.2a.2

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

Key:

Category B trees/groups of moderate-quality	
Root protection area (RPA)	
Tree stem	
Tree canopy	
Category C trees of low-quality	
Root protection area (RPA)	
Tree stem	
Tree canopy	
Category U trees with significant structural and/or physiological defects	
Tree stem	
Tree canopy	
	Temporary tree protection fencing, to BS 5837: 2012 specification, as detailed in the Arboricultural Method Statement (AMS)
	Geo-cellular confinement, to specification detailed in the AMS



Proposed driveway to be constructed upon a "no-dig" geo-cellular confinement system, with a permeable top-dressing. No excavations to be carried out within tree RPAs.

Proposed wooden post & rail fence; installation to follow guidelines in the AMS.

1200 mm length ramp to account for approx. 100-200 mm level differences between geo-cellular confinement driveway and existing levels of PRow.

Construction materials and equipment storage area - away from tree RPAs

