ARBORICULTURAL METHOD STATEMENT
to BS 5837:2012
at
The Workshop
King Cliffe Works
Huddersfield
West Yorkshire
HD2 2RR

Client:
Roheena Akhtar

Client Address:
29 Aquamarine Drive
Fartown
Huddersfield
HD1 1BG

JCA Ref:
14218b/TT

JCA Limited
Arboricultural & Ecological Consultants

Contents

1. Introduction

1.1 Purpose of the Method Statement

1.1.1 This Arboricultural Method Statement has been prepared to ensure good practice in the protection of retained trees during the development at **The Workshop**, off **King Cliffe Road** in **Huddersfield.**

1.2 Terms of Reference

1.2.1 JCA Limited is instructed by **Roheena Akhtar** to prepare an Arboricultural Method Statement for the proposed development, based on our Arboricultural Report dated 29th June 2018 (JCA Ref: **14218/TT**). The arboricultural survey and report conforms to the most recent specifications outlined in BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*.

1.2.2 The proposed development will consist of the renovation of the existing building on site, converting this into a residential dwelling. The proposals also include for the existing building is to be extended at the rear (south-west), where a two storey extension is proposed, and to the side (north-west), where a single storey extension is proposed.

1.2.3 The proposals also include for a car parking area and a storage/waste collection point.

1.2.4 The following drawings have been provided and these are the basis of the Arboricultural Method Statement and Tree Protection Plan at **Appendix 4**:

- Development Layout (Drawing No. **Drawing No. 1503 - 02B**).

1.3 Status of the Method Statement

1.3.1 This Arboricultural Method Statement should be included as part of the specification and schedule of works issued to the building contractor, and can form part of the contract.

1.3.2 This Arboricultural Method Statement should be available on site for inspection by the local authority, contractors and other relevant persons.

2. Tree Works Prior, During and Post Construction

2.1 Tree Works Prior to Construction

2.1.1 Prior to any construction activity, the first operation on site will be the undertaking of the necessary arboricultural works, as described at **Appendix 1**.

2.1.2 The tree works include:

- The pruning of **T1** and **G5**, for arboricultural reasons.

2.2 Tree Works During Construction

2.2.1 In this case, no above ground tree works are envisaged to be required during the construction phase.

2.2.2 The proposed extensions will be close to the RPA's of **T1** and **T4** (although remain outside of the RPA's of these trees). As a precautionary measure, it is advised that any roots unearthed during the required on site excavation works be cleanly severed/cut using appropriate hand tools (e.g. sanitised hand saws or bypass secateurs), where required.

2.2.3 Damage to trees during the construction phase should be prevented by the installation of the temporary protective barrier (fencing and ground protection), to create a Construction Exclusion Zone (CEZ). All persons on site must be aware of limitations that apply within the CEZ (please refer to **Section 3.1.3**).

2.2.4 If any trees on site are damaged, this must be immediately reported to JCA to agree on appropriate remedial action. Contact numbers for all parties can be found at **Section 7**.

2.3 Tree Works Post Construction

2.3.1 When the construction phase is complete and when the temporary protective barrier has been removed, some minor remedial works may be required (for aesthetic purposes).

2.3.2 Any post construction remedial works must be applied for via a tree work application submitted to the Local Planning Authority.

2.3.3 No post construction remedial works are to be carried out on the trees until permission has been granted by the Local Planning Authority.

2.4 Recommendations For Tree Works

2.4.1 All work must be undertaken to BS 3998: 2010 - *Recommendations for tree work* and carried out by qualified, experienced and, ideally, Arboricultural Association approved contractors who must be adequately insured.

2.4.2 Any defects seen by a contractor or the client that were not apparent to the consultant must be brought to the attention of JCA immediately.

2.4.3 No liability can be accepted by JCA in respect of the trees unless the recommendations of this Method Statement are carried out under our supervision.

3. The Protective Barrier Prior, During and Post Construction

3.1 Protective Barrier Prior to Construction

3.1.1 The installation of the temporary protective barrier will be the very first job to be undertaken on site following the completion of the tree works (**Section 2.1**). This barrier may comprise of protective fencing, ground protection, or a combination of both, as detailed below and in **Section 3.2**.

3.1.2 The protective fencing must be constructed in accordance with BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations* and will be located as shown on the Tree Protection Plan at **Appendix 4**. Where possible, the protective barrier will enclose the entire Root Protection Area (RPA) of the trees to make a Construction Exclusion Zone (CEZ); **this area is to be considered a restricted area; no pedestrians, vehicles, equipment or machinery are allowed within the CEZ and the storage of materials is not permitted, unless specified within this Method Statement**.

3.1.3 The protective fencing will be installed in accordance with BS 5837: 2012 and will comprise of a vertical and horizontal scaffold framework, well braced to resist impacts. The vertical tubes should be spaced at a maximum interval of 3m and driven securely into the ground, taking care to avoid underground services and structural roots. Finally, weld mesh panels are to be securely fixed on the scaffold framework. Please refer to **Appendix 2 (Fig 1)** for protective fencing details.

3.1.4 Once the fencing is installed, waterproof signs with the sentence '*Protected tree zone, no storage or operations within this are*a' are to be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the cordoned off area. A prepared sign is available at **Appendix 2**.

3.1.5 Once installed, the appointed arboriculturalist will be invited on site to inspect the protective fencing and ground protection, ensuring that it is located in the correct position and that it has been constructed in accordance with this Method Statement. No other work, including soil stripping, excavation, or the bringing onto site of materials or machinery, shall commence until the barrier is installed and confirmed to be acceptable by the appointed arboriculturalist.

3.1.6 It is important that the protective fencing be checked by the LPA or an arboricultural consultant prior to any construction works being carried out on site. **If the protective fencing is not correctly installed or if it does not comply with BS 5837: 2012, this could result in damage being caused to trees and consequently, a stop notice may be served by the LPA.**

3.2 Ground Protection

3.2.1 It is not possible to enclose the entire RPA of **T1** and **T4** with protective fencing. As such, it will be necessary to lay appropriate ground protection which, in combination with the fencing described in **Section 3.1**, will comprise the protective barrier.

3.2.2 The ground protection will be installed prior to construction and retained until the material completion of development. The purpose of the ground protection is to enable site traffic to pass over the RPAs of trees, whilst minimizing compaction and disturbance of the underlying soil which can lead to root asphyxiation and damage.

3.2.3 As only pedestrian traffic is required to pass over the exposed RPA, scaffold boards laid on top of woodchip (100mm deep) shall be laid (where the RPA's are not enclosed by the fencing).

3.3 Protective Barrier During Construction

3.3.1 No operations shall take place which require the removal of part of the protective barrier without prior agreement with the Local Planning Authority or JCA.

3.3.2 The protective barrier must be inspected for faults or damage by the site manager or other responsible named person on a regular basis and a written record kept. Any faults or defects must be repaired or replaced as soon as is reasonably practicable. Details of the site manager and relevant contact details can be found at **Section 7**.

3.4 Removal of the Protective Barrier

3.4.1 When the development phase is complete and the main site machinery has been removed, the Local Planning Authority should be invited to inspect the site to give approval for the removal of protective barrier.

3.4.2 When this approval has been given the protective barrier may be dismantled and removed from site.

3.4.3 It should be noted the same restrictions apply to all RPAs as the CEZ (please refer to **Section 3.1.3**).

4. Construction Phase

4.1 Demolition Works

4.1.1 In this case, no demolition works are required within the RPA's of the retained trees. Providing that the protective barrier is installed correctly and prior to the commencement of demolition/construction, no further actions are required to prevent foreseeable damage to these trees. See **Section 3** for further details regarding the protective barrier.

4.2 Ground Level Changes

4.2.1 No ground level changes are required within the RPA of any tree to be retained on this site. As such no mitigation actions are considered necessary.

4.3 Construction of Hard Surfaces

4.3.1 No new hard surfaces are proposed within the RPA of retained trees. As such, no specialist mitigation actions are required.

4.4 Construction of New Buildings

4.4.1 The proposed extensions are located at a sufficient distance from retained trees that no specialist foundation methods are required for arboricultural purposes.

4.5 Excavations and Services

4.5.1 Details on service routes have not been provided at this time. As such, no provision for the routing of utilities within the RPAs is made within the scope of this report. All utilities must therefore be located outside the RPA of retained trees. If, for whatever reason, incursions into the RPAs are considered unavoidable, the consulting arboriculturalist and/or the LPA must be consulted immediately, to prevent a breach of planning conditions and/or damage to retained trees.

4.5.2 Guidance and methodologies on the installation of underground services whilst minimising damage to tree roots is provided at **Appendix 3**.

4.6 Location of the Site Compound

4.6.1 The site compound, typically including the site office, mess facilities, toilets, storage of materials and parking, must be located away from, and outside the RPA of retained trees. Areas designated for the storage and/or mixing of chemicals, including petrol, diesel and oils must also be located away from, and outside the RPA of retained trees.

4.6.2 Such areas should be constructed with consideration to, and contingencies for, the occurrence of spillages, preventing the leaching of chemicals into unprotected, open ground.

5. Post Construction Phase

5.1 Completion Meeting

5.1.1 Upon completion of the works as specified in **Section 4**, a JCA consultant will invite the Local Planning Authority representative to meet with them on site to agree on any remedial works which may be required.

5.1.2 Any necessary remedial works will be confirmed in writing and must be carried out in accordance with BS 3998: 2010 - *Recommendations for tree work.*

5.1.3 Due to the large potential penalties for illegally carrying out work to protected trees, JCA recommend that a further check is carried out prior to any works being undertaken post development.

5.2 Post Construction Landscaping

5.2.1 Following completion of the main construction phase, the protective fencing and ground protection may be removed and the landscaping phase can commence.

5.2.2 If the proposals include for the installation of wooden boundary fences and posts. Where these are located within the RPA of retained trees, post holes will be dug by hand and they are to be as small as practically possible. They may be driven in either by hand or using mechanical means. However, if construction plant is to be used, it must work from outside of the RPA at all times.

5.2.3 The retained trees on site may be subject to some form of landscaping or seeding beneath their canopies after the development phase. At this stage the protective barrier will have been removed and the property may be occupied.

5.2.4 Landscaping works must be carried out in such a way as to avoid ground level changes or deep digging within RPAs. Tractor mounted rotovation or other mechanised cultivation methods must not be used within the RPAs of retained trees.

5.2.5 Heavy machinery is not permitted in the vicinity of retained trees, unless otherwise stated in this method statement.

5.2.6 Herbicides should be appropriate for the purpose and should not be used in such a way as to damage any retained trees or vegetation.

5.2.7 If in doubt, regarding the impact of proposed landscape operations, please contact the appointed arboriculturalist.

6. Timescale of Works

6.1.1 The timescale for arboricultural requirements are summarised below:

Timescale	Action	✓	Initial
Stage 1	All requirements listed in the planning consent are approved by the Local Authority planning office.		
Stage 2	Undertake the tree works (as detailed at **Appendix 1)**.		
Stage 3	Install the temporary protective fencing around the trees (as detailed at **Appendix 2** and as shown on the Tree Protection Plan at **Appendix 4**).		
Stage 4	Install ground protection within the RPAs of those trees which are not fully protected by the fencing (as detailed in **Section 4**).		
Stage 5	Have the Local Planning Authority inspect the fencing and ground protection measures prior to any on site construction. Once inspected, the protective fencing and ground protection must not to be moved or breached.		
Stage 6	Construction Phase: If required, cleanly severed/cut using appropriate hand tools (e.g. sanitised hand saws or bypass secateurs) any roots unearthed during the required on site excavation works.		
Stage 7	Following the completion of the construction phase and when all site traffic and machinery has left, the protective fencing and ground protection can be removed.		
Stage 8	Post construction remedial tree works to be undertaken.		

7. Relevant Contact Details

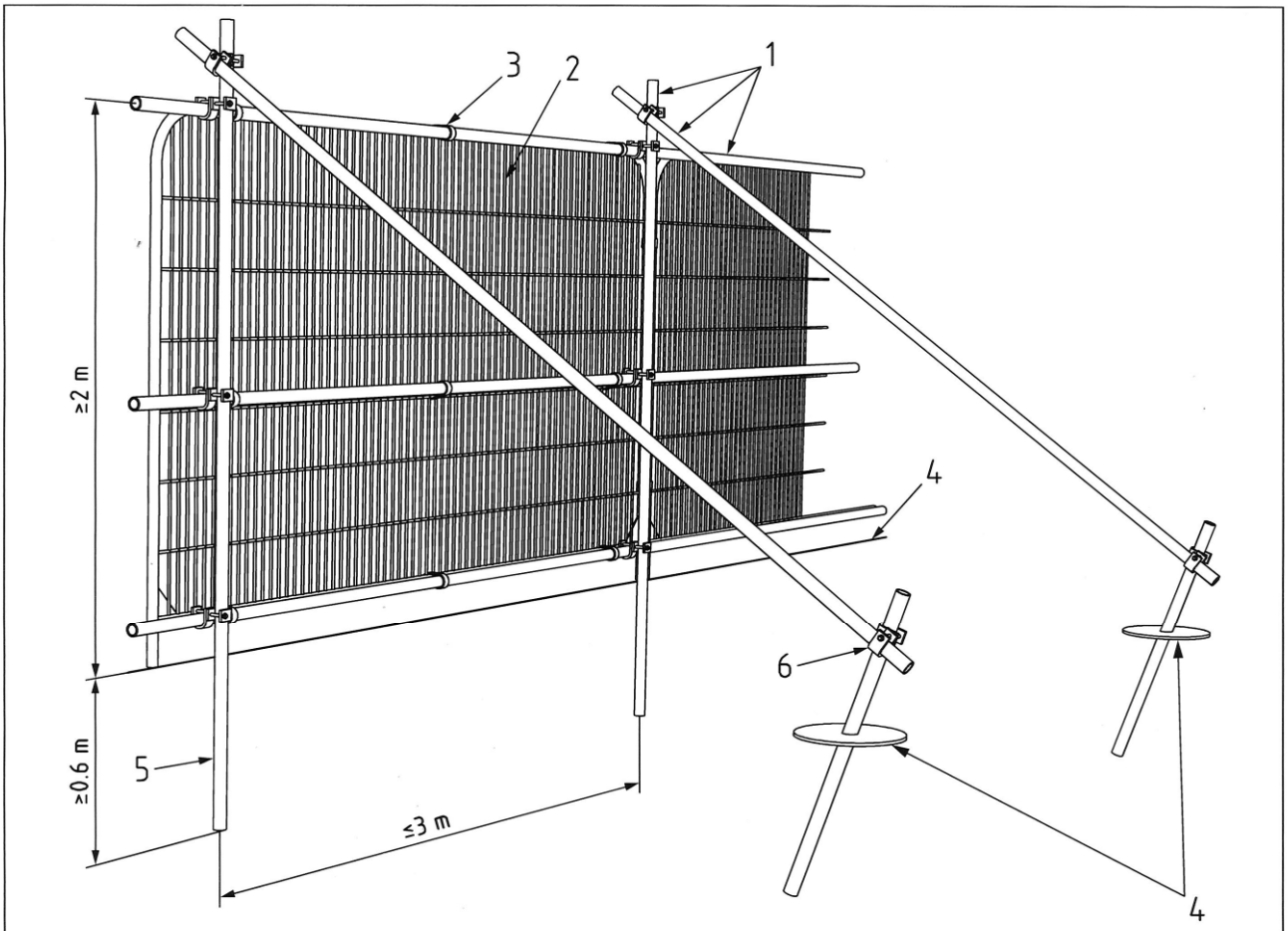
Contact Name	Organisation/Detail	Contact Number
Toby Thwaites Arboricultural Consultant	JCA Limited	01422 376335
TBC Tree Officer	Kirklees Council	01484 414 909
TBC Site Manager	TBC	TBC
TBC Architect	TBC	TBC

Appendices

Tree Ref.	Age Common Name *Botanical Name*	Height (m)	Crown Height (m)	Height (m) and Direction of the Lowest Branch	Diameter (cm)	Crown Spread N W E S	Observations	Recommendations Priority	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
T 1	Mature Ash *Fraxinus excelsior*	16	3	5 n/a	63	7.5 7.5# 5.5 7#	Located at the top of a steep bank, against the boundary. Twin-stemmed at 5m with a reasonably balanced crown. Ivy up the stem impeded the survey. Overhanging the boundary of the site with some branches in contact with the chimney of the adjacent building. Minor deadwood, dieback and sparse foliage noted in the upper crown; these symptoms are consistent with Ash Dieback. an Elm tree (within **G5**) is growing close to the base.	Crown lift to clear the adjacent building. Monitor biennially due to the suspicion of Ash Dieback. Cleanly sever/cut any tree roots unearthed during the on site construction works. High	FAIR	FAIR	HIGH	MOD	10+	B 2
T 2	Early Mature Hawthorn *Crataegus monogyna*	5	2	2.5 S	30#	3.5# 2.5 4.5 1	Located towards the top of the bank, beneath **T1**. Twin-stemmed at 1.5m with an unbalanced crown; leaning to the north-east and overhanging the boundary of the site. Snapped branches, branch stubs and occasional pruning wounds due to crown lifting noted.	No action is required at present. n/a	GOOD	FAIR	LOW	HIGH	20+	C 2
T 3	Mature Hawthorn *Crataegus monogyna*	7	2 (over the site)	2.5 N	47	1.5 5# 5.5 2.5	Located down the steep bank. Twin-stemmed at 1.5m with a slightly unbalanced crown. Overhanging the boundary of the site. Bark wounds, snapped branches, minor deadwood and minor dieback noted. Covered in Ivy.	Monitor biennially. Moderate	FAIR	FAIR	MOD	HIGH	10+	C 2
T 4	Early Mature Hawthorn *Crataegus monogyna*	7	1.5	2 n/a	2#	3 4.75 2	Located down the steep bank. Twin-stemmed at 1.3m with a slightly unbalanced crown. Covered in Ivy; a full detailed inspection was not possible. A snapped lime (east side), deadwood and some dieback was noted.	Monitor biennially. Cleanly sever/cut any tree roots unearthed during the on site construction works. Moderate	FAIR	FAIR	MOD	HIGH	10+	C 2
G 5	Young to Mature Mixed	To 14	1+	n/a n/a	25 ave.	See Plan	Mixed trees growing on the banking and providing a good screen and wildlife habitat. Predominantly young to semi-mature Elm and Hawthorn with occasional Elder, Sycamore saplings and larger Ash trees amongst. One mature Ash tree to the north (please refer to the Tree Constraints Plan at **Appendix 6**) overhangs the site boundary with branches in contact with the adjacent buildings. *Daldinia concentrica* was observed on a split limb (east side).	Crown lift the mature Ash tree to clear the adjacent buildings. Low	GOOD	GOOD	HIGH	LOW to HIGH	20+	B 2

Appendix 2: Protective Barrier

A2.1 The protective barrier will be installed in accordance with BS5837: 2012. The default specification of BS 5837: 2012 (pictured below for reference) recommends a vertical and horizontal, scaffold framework, well braced to resist impacts, with vertical tubes at no more than 3m intervals. These should be driven into the ground. Weld mesh panels should be affixed to this framework with scaffold clamps - See Figure 1.



Key

1 Standard scaffold poles
2 Heavy gauge 2 m tall galvanized tube and welded mesh infill panels
3 Panels secured to uprights and cross-members with wire ties
4 Ground level
5 Uprights driven into the ground until secure (minimum depth 0.6 m)
6 Standard scaffold clamps

Figure 1: 'Protective Barrier to BS 5837: 2012'. To be used where situated in open ground.

TREE PROTECTION ZONE

KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED
BY STRICT PLANNING CONDITIONS

ANY DAMAGE CAUSED TO THESE TREES MAY
RESULT IN **CRIMINAL PROSECUTION**

RESTRICTED AREA:

- THE PROTECTIVE FENCE MUST NOT BE MOVED OR BREACHED
- NO PERSON, MACHINERY, VEHICLE OR PLANT IS PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO MATERIALS SHALL BE STORED WITHIN THE TREE PROTECTION ZONE
- NO EXCAVATIONS ARE PERMITTED WITHIN THE TREE PROTECTION ZONE
- NO SPOIL IS TO BE DEPOSITED WITHIN THE TREE PROTECTION ZONE
- NO FIRES ARE TO BE LIT WITHIN THE TREE PROTECTION ZONE

REPORT TREE DAMAGE TO JCA LIMITED ON
01422 376 335

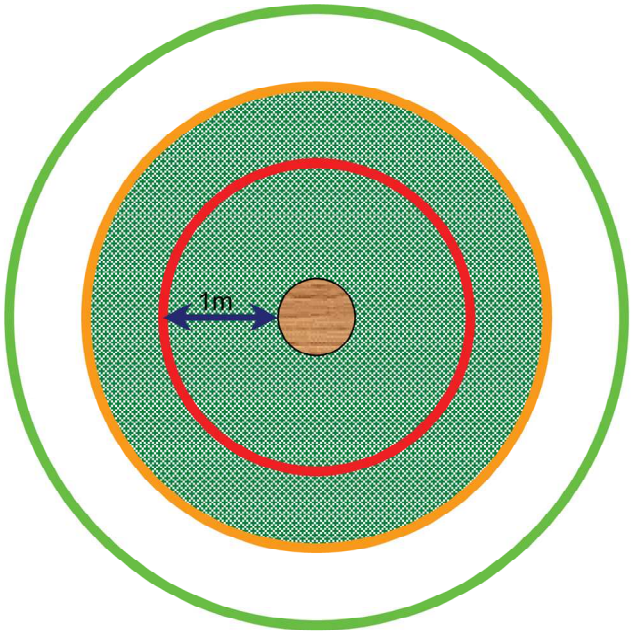
Appendix 3: Utilities and Drainage

A3.1 Over-ground services should be routed away from areas where they are likely to interfere with the crowns of trees. Similarly any landscaping should take account of over-ground services and mature tree size.

A3.2 Underground services must be routed outside the RPA of retained trees, unless otherwise specified within this report. NJUG Volume 4 Issue 2 (on the next page) is a set of accepted guidelines for installing services in the proximity of trees. Please note that this is not a substitute for site-specific advice by an arboriculturalist and consultation should be made wherever incursions of RPAs are envisaged. The contents of this report, specifically **Section 4.5**, supersede the set of guidelines on the next page, which are only included for reference.

The National Joint Utilities Group

NJUG Guidelines for the Planning, Installation and Maintenance of Utility Apparatus in Proximity to Trees – Issue 2



TREE PROTECTION ZONE

Key to Diagram

Trunk of Tree

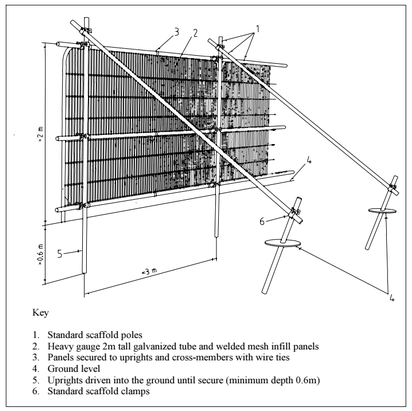
Spread of canopy or branches

PROHIBITED ZONE – 1m from trunk. Excavations of any kind must not be undertaken within this zone unless full consultation with Local Authority Tree Officer is undertaken. Materials, plant and spoil must not be stored within this zone.

PRECAUTIONARY ZONE – 4 x tree circumference. Where excavations must be undertaken within this zone the use of mechanical excavation plant should be prohibited. Precautions should be undertaken to protect any exposed roots. Materials, plant and spoil should not be stored within this zone. Consult with Local Authority Tree Officer if in any doubt.

PERMITTED ZONE – outside of precautionary zone. Excavation works may be undertaken within this zone however caution must be applied and the use of mechanical plant limited. Any exposed roots should be protected.

Default specification for a protective barrier



Key

1. Standard scaffold poles
2. Heavy gauge 2m tall galvanized tube and welded mesh infill panels
3. Panels secured to uprights and cross-members with wire ties
4. Ground level
5. Uprights driven into the ground until secure (minimum depth 0.6m)
6. Standard scaffold clamps

TREE PROTECTION MEASURES

THE ROOT PROTECTION AREA (RPA) INDICATES THE LIKELY ROOTING ZONE OF A TREE.

UNLESS OTHERWISE STATED IN THE ARBORICULTURAL METHOD STATEMENT, THIS AREA NEEDS TO REMAIN UNDISTURBED.

TO ACHIEVE THIS, PROTECTIVE FENCING WILL BE INSTALLED TO ENCLOSE THE RPA TO MAKE A CONSTRUCTION EXCLUSION ZONE (CEZ);

THIS AREA IS TO BE CONSIDERED A RESTRICTED AREA; NO PEDESTRIANS, VEHICLES, THE STORAGE OF MATERIALS, EQUIPMENT OR MACHINERY ARE ALLOWED WITHIN THE CEZ, UNLESS SPECIFIED WITHIN THE ARBORICULTURAL METHOD STATEMENT.

WHERE IT IS NOT POSSIBLE TO ENCLOSE THE RPA WITH THE PROTECTIVE FENCING, GROUND PROTECTION MEASURES WILL NEED TO BE LAID TO MINIMIZE ANY GROUND COMPACTION AND ANY DISTURBANCE TO THE UNDERLYING SOIL.

THE PROTECTIVE BARRIER WILL BE INSTALLED PRIOR TO ANY CONSTRUCTION ACTIVITIES TAKING PLACE AND WILL BE RETAINED IN PLACE UNTIL THE MATERIAL COMPLETION OF DEVELOPEMNT.

IT IS IMPORTANT THAT THE PROTECTIVE BARRIER IS CHECKED BY THE LPA OR THE ARBORICULTURAL CONSULTANT PRIOR TO ANY CONSTRUCTION WORKS BEING CARRIED OUT. IF THE TREE PROTECTION MEASURES ARE NOT CORRECTLY INSTALLED OR IF THEY DO NOT COMPLY WITH BS 5837: 2012, THIS COULD RESULT IN DAMAGE BEING CAUSED TO TREES AND CONSEQUENTLY A STOP NOTICE MAY BE SERVED BY THE LPA.

Appendix 4: Tree Protection Plan

ADDRESS: The Workshop, off Kings Cliffe Road, Huddersfield, HD2 2RR.
JCA REF: 14218b/TT

SCALE: 1:200	PAPER SIZE : A2

SURVEYED BY: TT	DRAWN BY: TT	APPROVED BY: CC

	TREE TO BE RETAINED
	TREE TO BE REMOVED
	STEM OF TREE TO BE RETAINED
	STEM OF TREE TO BE REMOVED
	ROOT PROTECTION AREA (RPA)
	AREA OF RPA NOT ENCLOSED BY THE PROTECTIVE FENCING: GROUND PROTECTION IS REQUIRED TO AVOID COMPACTION
	PROTECTIVE FENCE LINE (CEZ)
	PROPOSED NEW DEVELOPMENT

JCA Limited

Arboricultural & Forestry Consultants

I hope that this report provides all the necessary information, but should any further advice be needed please do not hesitate to contact the author.

Signed

.....

Toby Thwaites *BSc. (Hons), H.N.D. Arboriculture.*

17th September 2018

For and on behalf of ***JCA Ltd***

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- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

ECOLOGICAL SERVICES

Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected Species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes

Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)

HEAD QUARTERS:

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