

ARBORICULTURAL METHOD STATEMENT
to BS 5837:2012
at
Enterprise 36
Carr Lane
Tankersley
South Yorkshire
S75 3BE

Client:
KPP Architects Ltd

Client Address:
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0113 2390460

JCA Ref:
14463/AJB

JCA Limited
Arboricultural & Ecological Consultants

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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 **Enterprise 36**, **Carr Lane**, **Tankersley**.

1.2 Terms of Reference

1.2.1 JCA Limited is instructed by **KPP Architects Ltd** to prepare an Arboricultural Method Statement for the proposed development. The arboricultural survey and subsequent report conform to the most recent specifications outlined in BS 5837: 2012 *Trees in relation to design, demolition and construction - Recommendations*.

1.2.2 It is proposed to construct an industrial business park.

1.2.3 The following drawing has been provided and this are the basis of the Arboricultural Method Statement and the Tree Protection Plan at **Appendix 3**:

- Development Layout (Drawing No. **3001**).

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.

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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 removal of **T2**, a section of **G4** (as shown in red on the plan at **Appendix 3**) and **G5**, in order to facilitate the proposed development.

- The crown lifting of **T7** and **T8**, to facilitate the erection of the protective fencing.

2.2 Tree Works During or post- Construction

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

2.3 Recommendations For Tree Works

2.3.1 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.

2.3.2 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.

2.3.3 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.

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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**).

3.1.2 Please note that an existing heras fence and gabion walls provide adequate protection to many trees on site, as can be seen notated on the plan at **Appendix 3**.

3.1.3 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 in a purple line on the Tree Protection Plan at **Appendix 3**. 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**.

3.1.4 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.

3.1.5 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**.

3.1.6 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.

3.1.7 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.**

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3.2 Ground Protection

3.2.1 It is possible to protect all trees with the protective fencing, as such, no ground protection measures are required.

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**).

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4. Construction Phase

4.1 Demolition Works

4.1.1 No demolition works are required adjacent to retained trees.

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 In this case, 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 buildings 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 In this case the routing of the proposed utilities is situated outside the RPAs of retained trees. As such, no mitigation actions are considered necessary to mitigate potential damage to tree roots.

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

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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 may be removed and the landscaping phase can commence.

5.2.2 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.

5.2.3 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.

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

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

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

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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 5**).		
Stage 45	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 5	Undertake the construction phase.		
Stage 6	Following the completion of the construction phase and when all site traffic and machinery has left, the protective fencing can be removed.		
Stage 7	Post construction remedial tree works to be undertaken (if required).		
Stage 8	Undertake the landscaping scheme.		

7. Relevant Contact Details

Contact Name	Organisation/Detail	Contact Number
Andrew Bussey Arboricultural Consultant	JCA Limited	01422 376335
Ed Jowett Tree Officer	Barnsley Metropolitan Borough Council	01226 770770
TBC Site Manager	TBC	TBC

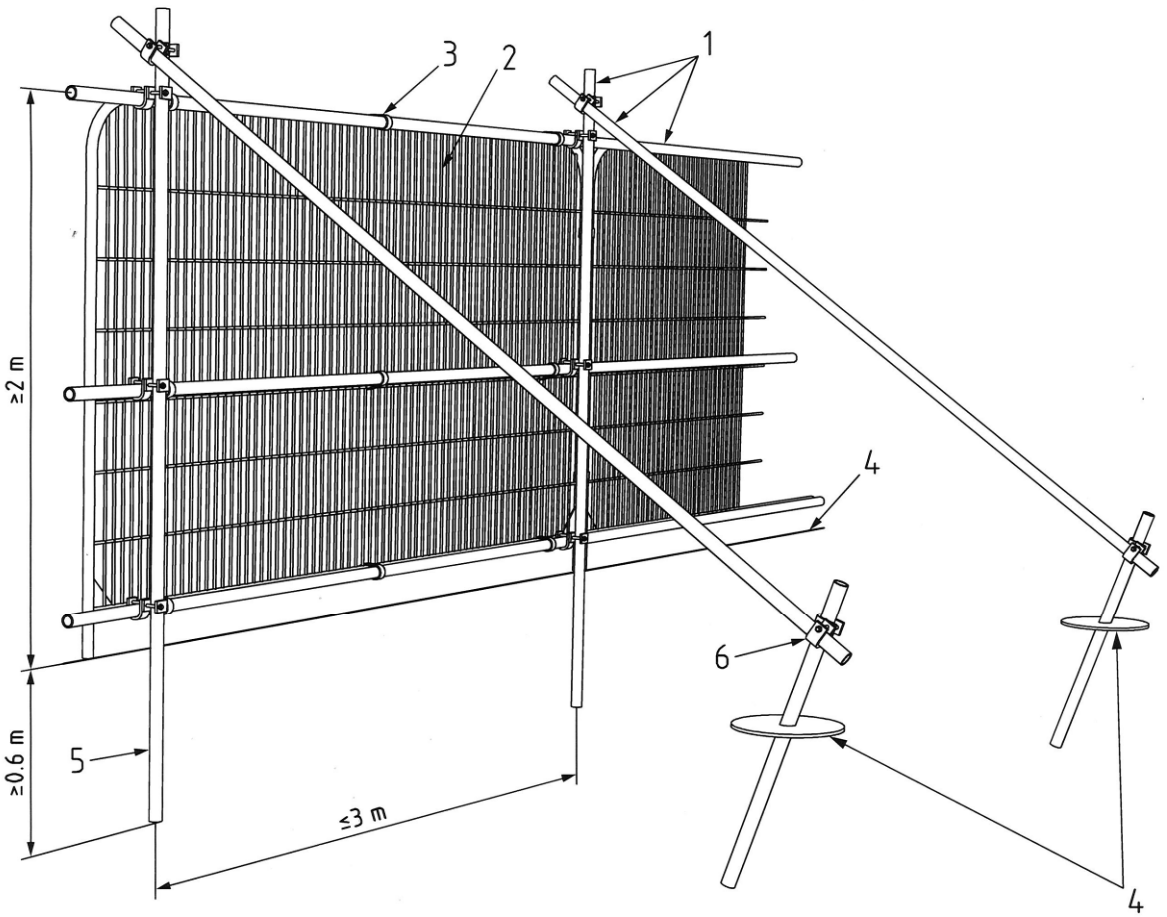
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Appendices

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	Physiological Condition	Structural Condition	Amenity Value	NHBC Water Demand	Life Expectancy (yrs)	Retention Category
G 1	Semi-mature Mixed species *Details in observations*	To 16	0+	n/a	To 30#	See plan	A Tree Preservation Order protected shelterbelt of Silver Birch and Downy Birch. Not fully inspected due to the heras fencing.	No action required.	GOOD	GOOD	MOD	LOW	40+	B 2
T 2	Early-mature Silver Birch *Betula pendula*	17	4	6 N	48	7# 5# 4 4.5	Twin-stemmed at 1.5m with a balanced crown. No evidence of significant pruning. Not fully inspected due to the heras fencing.	Remove to faciliate the proposed building.	GOOD	GOOD	LOW	LOW	40+	B 2
G 3	Young to early-mature Mixed species *Details in observations*	To 16	0+	0+ n/a	To 50#	See plan	A linear shelterbelt group of Silver Birch English Oak and Common Ash. Not fully inspected due to the heras fencing.	No action required.	GOOD	GOOD	MOD	LOW TO HIGH	40+	B 2
G 4	Young to semi-mature Mixed species *Details in observations*	To 16	0+	0+ n/a	To 25#	See plan	A linear shelterbelt group of Silver Birch, Downy Birch, Whitebeam, English Oak, Common Ash, Sycamore, Hawthorn, Poplar sp and Scots Pine. Not fully inspected due to the heras fencing.	Remove the section shown in red on the attached plan in order to allow for the proposed landscaping.	GOOD	GOOD	MOD	LOW TO HIGH	40+	B 2
G 5	Young to semi-mature Mixed species *Details in observations*	To 16	0+	0+ n/a	To 25#	See plan	A group of presumably self-seeded Poplar sp., Downy Birch and Sycamore. Not fully inspected due to poor terrain.	Remove to faciliate the proposed landscaping.	GOOD	GOOD	LOW	LOW TO HIGH	20+	C 2
T 6	Semi-mature Silver Birch *Betula pendula*	14	1	1.5 n/a	26	3 4 3.2 4.5	Single-stemmed with a slight lean and a reasonably balanced crown. Bark wounds noted.	No action required.	GOOD	GOOD	LOW	LOW	10+	C 2
T 7	Semi-mature English Oak *Quercus robur*	9	2	1.5 n/a	29	4.3 4.3 4.3 4.3	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	Crown lift to 2m in order to alllow for the erction of the protective fencing.	GOOD	GOOD	LOW	HIGH	40+	B 2
T 8	Early-mature Whitebeam *Sorbus aria*	10	1	1.8 n/a	46	6 5 6 4.5	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. No major visible defects.	Crown lift to 2m in order to alllow for the erction of the protective fencing.	GOOD	GOOD	LOW	MOD	40+	B 2
T 9	Semi-mature Wild Cherry *Prunus avium*	9	3	2.5 n/a	28	3 4.5 5.6 4.5	Single-stemmed and vertical with a balanced crown. Canker to stem.	No action required.	GOOD	GOOD	LOW	MOD	10+	C 2
T 10	Semi-mature Rowan *Sorbus aucuparia*	5	1	1 NW	22	3.2 3.2 3.2 3.2	Single-stemmed and vertical with a balanced crown. No evidence of significant pruning. No major visible defects.	No action required.	GOOD	GOOD	LOW	MOD	40+	B 2
T 11	Young Field Maple *Acer campestre*	4	1	1 n/a	7	1 1 1 1	Single-stemmed and vertical with a balanced crown. Occasional pruning wounds. A planted tree with stake and tie in place.	No action required.	GOOD	GOOD	LOW	MOD	40+	C 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.



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

Protective Barrier to BS 5837: 2012.

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TREE PROTECTION ZONE

KEEP OUT!

TREES ENCLOSED BY THIS FENCE ARE PROTECTED
BY STRICT PLANNING CONDITIONS

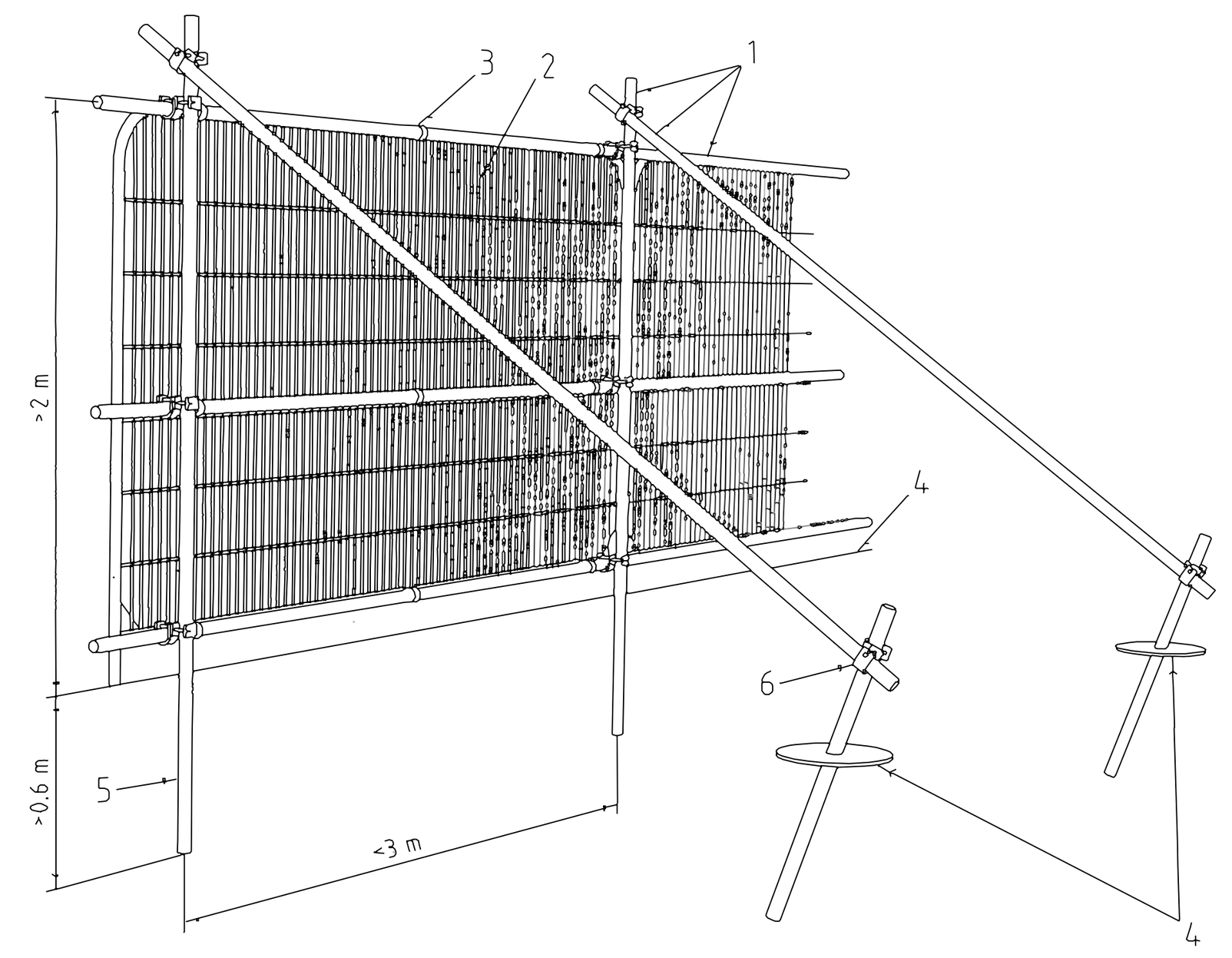
ANY DAMAGE CAUSED TO THESE TREES MAY
RESULT IN **CRIMINAL PROSECUTION**

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

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



N
W E
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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.

0 1 10 20 30 40 50 100 metres

THE LOCATION OF ALL GROUPS OF TREES ON THIS PLAN MUST BE TREATED AS INDICATIVE

THIS PLAN MUST BE PRINTED IN COLOUR AND READ IN CONJUNCTION WITH THE JCA REPORT (JCA REF: 14463/AJB).

Appendix 3: Tree Protection Plan

ADDRESS: Enterprise 36, Carr Lane, Tankersley, South Yorkshire, S75 3BE.
JCA REF: 14463/AJB.

SCALE: 1:1000	PAPER SIZE : A1

SURVEYED BY: AJB	DRAWN BY: AJB	APPROVED BY: PaH

(green circle)	TREE TO BE RETAINED
(red circle)	TREE TO BE REMOVED
(black dot)	STEM OF TREE TO BE RETAINED
(red dot)	STEM OF TREE TO BE REMOVED
(yellow-green disc)	ROOT PROTECTION AREA (RPA)
(purple line)	
(orange line)	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



.....

Andrew Bussey.

31st October 2018

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

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Professional Tree and Ecology Advice nationwide

ARBORICULTURAL SERVICES

Guidance for Architects and Developers

- British Standard 5837 Tree Surveys
- Arboricultural Implication Assessments (AIA)
- Arboricultural Method Statements (AMS)

Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

Tree Advice for the Legal Profession

- 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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