



ARBORICULTURAL METHOD STATEMENT

to BS 5837:2012 at

***White Knowle,
59 Cliffe Road,
Shepley,
West Yorkshire
HD8 8AG***

This document describes how the tree will be protected and managed during the development of this site. It explains how and when the protection measures must be installed and maintained throughout the development.

A copy of this document report must be permanently available on site for the duration of all development activity and should be referenced for practical guidance on how to protect the retained trees at this site.

Prepared for:
A+DP Architecture & Design
*The Old Police Station,
16 Bridge Lane,
Holmfirth
HD8 7AN*

Date: *May 2020*

Reference: AWA3175



Contents

1. INTRODUCTION	3
2. METHOD STATEMENT TIMELINE.....	4
3. ARBORICULTURAL IMPACTS ASSESSMENT.....	6
4. TREE PROTECTION.....	7
5. SIGNATURE	11
APPENDIX 1: IMAGES AND FIGURES	12
APPENDIX 2: RELEVANT CONTACT DETAILS.....	15
APPENDIX 3: RECORD OF ARBORICULTURAL SUPERVISION.....	16
APPENDIX 4: TREE PROTECTION PLAN.....	18

1. Introduction

1.1 Instruction

1.1.1 We have been instructed by A+DP Architecture & Planning to prepare an arboricultural method statement for the proposed development at:

- **White Knowle, 59 Cliffe Road, Shepley HD8 8AG**

1.2 Purpose

1.2.1 This method statement has been prepared in order to demonstrate that the development operations at this site can be undertaken with minimal risk of adverse impact on the trees to be retained.

1.2.2 This method statement conforms to BS 5837:2012 *Trees in relation to design, demolition and construction - Recommendations*. It is based on the arboricultural data, collected at a site visit during May 2020, detailed within Appendix 4 of this report.

1.3 Description of Development

1.3.1 It is proposed to build a single-storey extension to the rear of the existing residential dwelling. The proposed development layout has been provided by my client and is the basis for the Tree Protection Plan (TPP) at Appendix 4.

1.4 Details of Consent

1.4.1 Planning consent is subject to this method statement being agreed upon in advance by the Local Planning Authority. The contents of this report must be adhered to, before, during, and after the construction phase.

1.4.2 As such, no equipment, machinery or materials shall be brought onto the site in connection with the development until this arboricultural method statement detailing tree management and tree protection measures has been submitted to and approved by the Local Planning Authority.

2. Method Statement Timeline

2.1 Overview of Sequence of Operations

2.1.1 In overview, it is necessary to undertake the following sequence of operations in relation to arboricultural input for development operations.

- 1 Method Statement approved by the LPA.
- 2 Install tree protective measures.
- 3 Pre commencement meeting/confirm tree protection is as specified.
- 4 Construction of new development employing specialist foundations and 'no-dig' construction methods under arboricultural supervision.
- 5 Removal of tree protection.

2.2 Specific Sequence of Operations

2.2.1 The following timeline table informs the key principles for development operations proceeding in relation to arboricultural requirements conditioned as part of this method statement.

2.2.2 The actions and timescales within this table must be adhered to in order to discharge the arboricultural method statement planning condition for this site.

2.2.3 The precise timing and order of some of the development operations may need to be changed due to site specific operational requirements, yet any operations that may affect the trees on the site must be done so under arboricultural supervision by a suitably qualified person appointed by the contractor.

Sequence of Operations		
Stages	Action	Arboricultural Input
1 Approval	This AMS is submitted to and approved in writing by the LPA.	If necessary, liaise with contractor and LPA to discuss methodologies detailed.
2 Tree Protection	Installing the tree protective measures will take place prior to any storage of plant, materials and machinery. As shown at Appendix 4.	If necessary, liaise with the contractor installing the protective measures until completed to the standard specified in this method statement.
3 Site Meeting	Following installation of tree protection measures, the LPA shall be invited to inspect the fencing and discuss any other site operations that have implications for trees.	Meeting with a representative of the LPA and the site manager. Alternatively, contractor can confirm the fencing is as specified by taking photographs of the tree protection measures.
4 Construction	Undertake the construction of the new development, including specialist pile and beam foundations and 'no-dig' paving construction methods.	Installation of specialist pile and beam foundations and 'no-dig' construction methods within the RPA shall be carried out under arboricultural supervision and a written record kept. If necessary, liaise with the local authority and the site foreman to ensure any issues are adequately resolved.
5 Site Finishing	Removal of tree protective fencing must only be undertaken when all site traffic and machinery has left the site.	If acceptable to the LPA, the contractor can take photos of the site to give to the LPA to gain approval for the removal of protective measures.

3. Arboricultural Impacts Assessment

3.1 Tree Survey and Impact Assessment

- 3.1.1 The subject tree, Ash T1, is situated in an adjacent garden, to the west of the proposed development, beyond a stone wall. The tree is relatively prominent and so has moderate visual amenity value.
- 3.1.2 The tree was in fair condition and has fair prospects. Many Ash trees in the wider region are being impacted by Chalara or Ash dieback disease. Once a tree is infected, the disease is usually fatal, either directly or indirectly. While the identified Ash trees may continue to provide landscape and wildlife benefits for some time, their long-term prospects are likely to be limited as a result of Ash dieback.
- 3.1.3 The tree has been heavily pruned, or crown reduced, in the past to around 7m in height, with the new growth now forming the tree crown. This work has resulted in many pruning wounds and has reduced the value and prospects of the tree. It would be suitable to reduce the new growth back to near the old pruning wounds in the future, to make the tree more suitable for retention within its setting.
- 3.1.4 The tree Root Protection Area (RPA) detailed on the Tree Constraints Plan at Appendix 5 has been used as a layout design tool, to inform on the area around a tree where the protection of the roots and soil structure is treated as a priority. The RPA for each tree has been plotted as a polygon centred on the base of the stem.
- 3.1.5 Due to the presence of wall structures, ground level changes, and past tree pruning management the RPA is likely to be a simplified over representation of the tree roots actual morphology and disposition. However, detailed modifications to the shape of the RPA would largely be based on conjecture and so have been avoided.
- 3.1.6 The new development encroaches into the RPA of T1. The construction within the RPA may have negative impacts on tree roots. However, it should be possible to employ special foundation design such as mini/micro pile and suspended beam, in order to overcome or minimise any negative impact on the tree roots.

4. Tree Protection

4.1 Tree Protection Fencing

- 4.1.1 The protective fencing for this site should be located as shown on the Tree Protection Plan (TPP) at Appendix 4 (as illustrated with a thick purple line).
- 4.1.2 The precise fencing location may need to be slightly adjusted on site due to local site conditions but is not expected to differ from that shown on the TPP. The final fencing position must be agreed on by the LPA before the commencement of any site works.
- 4.1.3 The tree protective fencing details should be incorporated into relevant subsequent plans, method statements used for design purposes and construction drawings issued for use on site, to ensure that all interested parties are fully aware of the areas in which access and works may and may not take place.
- 4.1.4 The protective fencing will be appropriate to the degree and proximity of likely construction works. In this instance, the default BS 5837:2012 tree protection fencing is deemed disproportionate. It is suggested (if acceptable by the LPA) an adequate level of protection for the trees could be provided by 'Heras' type fencing, of welded mesh panels on rubber or concrete feet.
- 4.1.5 The fencing should be joined together using a minimum of two anti-tamper couplers, installed so that they can only be removed from inside the fence. The fencing panels should be supported on the inner side by stabilizer struts, which should normally be attached to a base plate secured with ground pins or mounted on a block tray (see Appendix 1 for an example).
- 4.1.6 The area enclosed by the fencing is referred to as the Construction Exclusion Zone (CEZ); this area should be considered a restricted area. No pedestrians, vehicles, storage of materials, equipment or machinery should be allowed within the CEZ unless specified within this method statement. The site manager must ensure that all personnel are aware of the restrictions that apply to the fenced-off area.
- 4.1.7 Once the fencing is erected, waterproof warning signs labelled 'Tree

Protection Area' should be placed at 3m intervals to ensure that all personnel are aware of the restrictions that apply to the fenced-off area (see Appendix 1 for an example sign).

- 4.1.8 The protective fencing should 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 should be repaired or replaced as soon as is reasonably practicable. The Tree Protection Fencing shall not be removed, breached or altered without prior written authorisation from the local planning authority and under arboricultural supervision by a suitable named responsible individual appointed by the site manager.

4.2 Ground Protection

- 4.2.1 The development work is within the exposed RPA of retained trees. As such, ground protection will be required within the RPA of T1 and T20 to avoid compaction of the soil which can arise from the single passage of a heavy vehicle, especially in wet conditions, so that tree root functions remain unimpaired.
- 4.2.2 Interlinked ground protection boards should be used. They should be located as shown on the Tree Protection Plan (TPP) at Appendix 5 (as illustrated with a light blue hatched area).
- 4.2.3 The precise location of the boards may need to be slightly adjusted on site due to local site conditions but is not expected to differ significantly from that shown on the TPP.
- 4.2.4 The new temporary ground protection should be capable of supporting any traffic entering or using the site without being distorted or causing compaction of underlying soil.
- 4.2.5 For pedestrian movements only, a single thickness of scaffold boards placed either on top of a driven scaffold frame, so as to form a suspended walkway, or on top of a compression-resistant layer (e.g. 100 mm depth of woodchip), laid onto a geotextile membrane.
- 4.2.6 For pedestrian-operated plant up to a gross weight of 2t, proprietary, inter-linked ground protection boards placed on top of a compression-resistant layer (e.g. 150 mm depth of woodchip), laid onto a geotextile membrane.

4.3 Construction of New Structure

- 4.3.1 The new extension is proposed within the RPA of the retained tree T1. The encroachment into the tree's RPA should not significantly adversely impact on the health or future condition of the trees, provided care is taken during the construction to avoid root damage, including the use of pile and beam type footings as opposed to strip footings.
- 4.3.2 The foundations for the extension are to be built using pile and beam type foundations so as to minimise any root damage to the retained trees. The rooting activity at the point where the piles are proposed should be investigated by hand excavation.
- 4.3.3 Consultations should first be undertaken with a structural engineer to ensure that this method of construction is viable and to assess the minimum diameter piles that would suffice for the structure.
- 4.3.4 The machinery required to dig and install the mini-piles is to pass over the RPA of the retained trees. Before the mini-pile machinery is brought onto site an assessment must be made as to whether ground protection will be needed to distribute the machinery weight.
- 4.3.5 The details of the mini-pile machinery should be made available the LPA prior to accessing the site. Significant tracked or wheeled machines will require ground protection (e.g. interlinking, non-slip road plates) over the RPA to access the area.
- 4.3.6 The digging and installation of the piles should be done under arboricultural supervision and a written record kept at appendix 3.

4.4 New Hard Surfaces

- 4.4.1 New hard surfaces, in the form of external paving are proposed within the RPA of the retained trees. The works within the RPA should not adversely impact on the health or future condition of the trees provided a 'no-dig' method of construction is utilised in accordance with the specifications given below.
- 4.4.2 The design and construction of the hard surfaces needs to be sensitive to the requirements of tree roots, substantial enough to withstand the expected levels of traffic and practicable in terms of ease of fabrication.

- 4.4.3 The finished surface must be porous in order to allow air and water to reach the tree roots, whilst at the same time being able to withstand the load applied. Toxic substances which could leach into the ground must be avoided. Severance of roots and soil compaction should be avoided. Any minor excavations in these areas to remove the existing surface vegetation/turf layer must be done so using hand tools only and under arboricultural supervision.
- 4.4.4 We are not qualified to recommend any particular construction method in terms of durability or structural integrity and any proposed construction method should be approved by a qualified structural engineer prior to implementation. Appropriate sub-base options for new hard surfacing include three-dimensional cellular confinement system, such as those provided by Geosynthetics Limited (<http://www.geosyn.co.uk>).
- 4.4.5 The construction of the no-dig hard surfaces, within the RPA of the retained trees must be done under arboricultural supervision and a written record kept at Appendix 3.

4.5 Drainage and Utilities

- 4.5.1 Drainage and utilities are to be directed away from the retained trees. Over-ground services should ideally be routed away from areas where they are likely to interfere with the crowns of mature trees. New underground services should be grouped together and routed away from RPAs. NJUG 10: Guidelines for the Planning, Installation and Maintenance of Utility Services in Proximity to Trees should be considered when installing services.

4.6 Additional Precautions

- 4.6.1 Allowance should be made for operations outside of the CEZ that could indirectly impact on trees. Including space for site huts, temporary toilet facilities (including their drainage) and other temporary structures; and space for storing (whether temporary or long-term) materials.
- 4.6.2 Care must be taken to prevent contamination with chemical spillages, including petrol, diesel and oils. Cement mixers and any other toxic materials should not be permitted within the RPA of the trees.

5. Signature

I trust this report provides all the required information.

Signed

.....

Adam Winson

Chartered Arboriculturist, MSc, BSc (Hons), MICFor, AIEEM.

15th May 2020

**AWA Tree Consultants Limited
Union Forge
27 Mowbray Street
Sheffield
S3 8EN**

www.awatrees.com

Appendix 1: Images and Figures

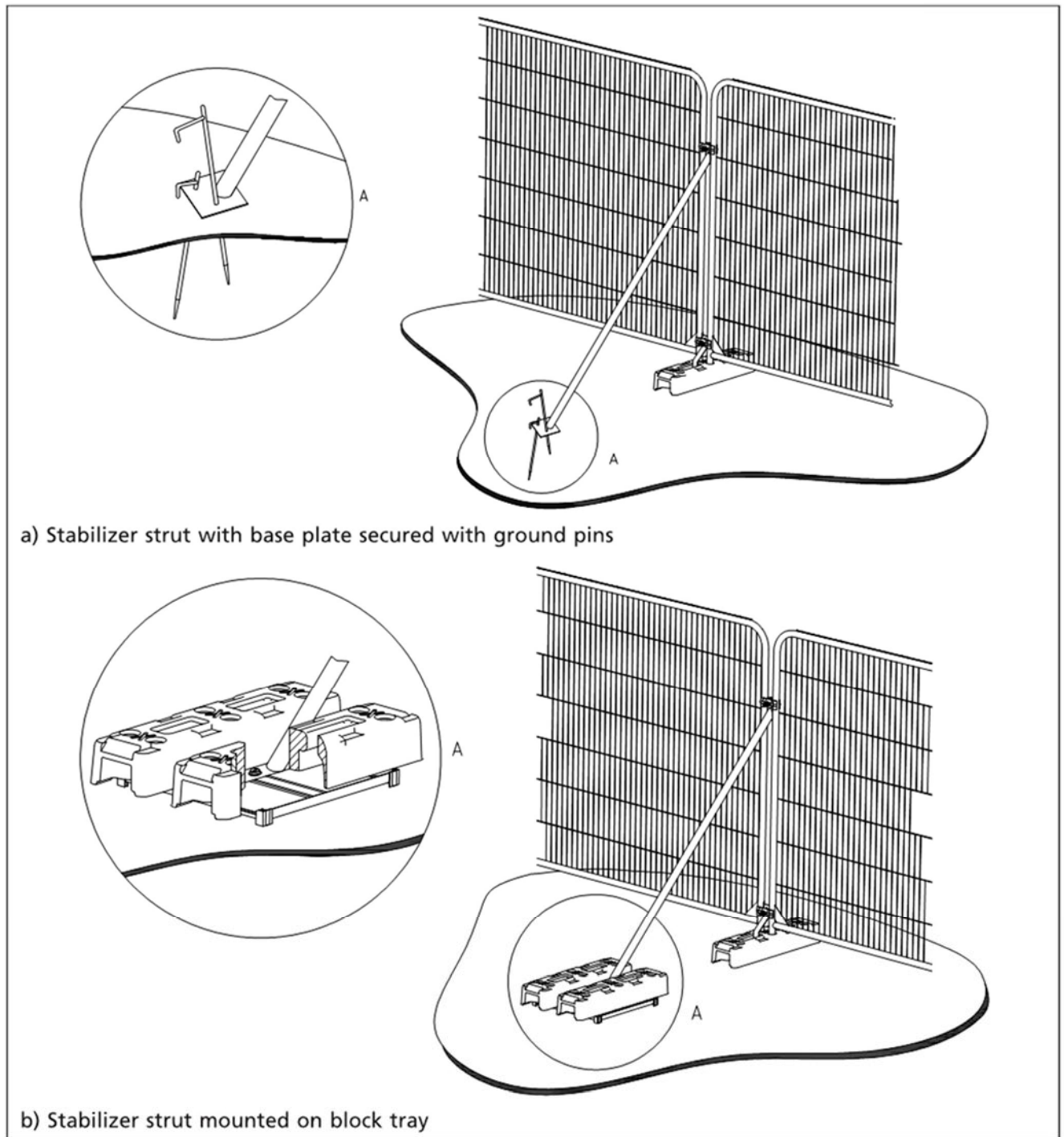


Figure 1: Secured 'Heras' type fencing with stabilizing system and fixed central pins (©BSI)



Figure 2: Secured 'Heras' type fencing with stabilizing system and anti-tamper couplers



Figure 3: Anti-tamper couplers to secure fencing and avoid unauthorised access



Figure 4: Warning sign for fencing



Figure 5: Example of A3 Correx Tree Protection Warning Sign fixed to fencing panel

Appendix 2: Relevant Contact Details

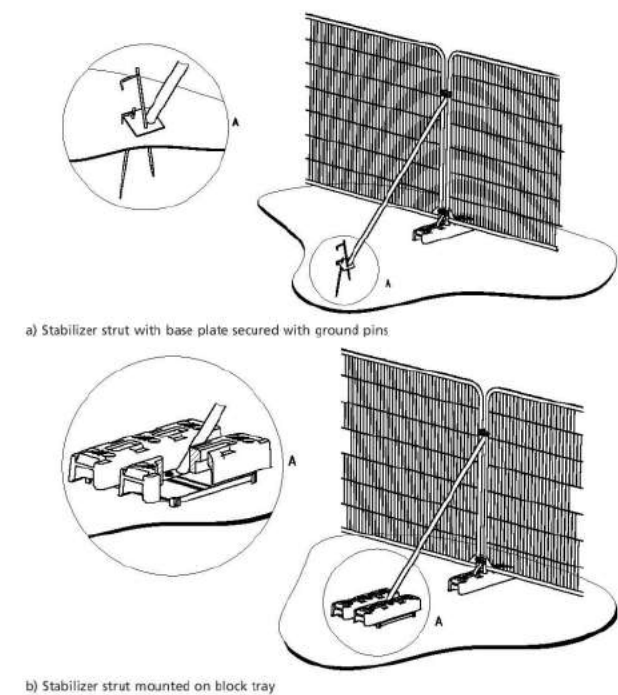
Contact Name	Organisation/Details	Contact Number	Contact E-mail
Russel Earnshaw	A+DP Architecture & Design	01484 685411	russell.earnshaw@adp-architects.com
Adam Winson	AWA Tree Consultants Ltd Arboricultural Consultant	0114 272 1124	adam@awatrees.com
Joe Robertson	Kirklees Council. Tree Officer	01484 414 909	dc.admin@kirklees.gov.uk

Required Site Visits	
Name of Site Inspector/ Arboricultural Consultant	
Supervision Stages	Comments/ Required Actions
Site visit 1: Inspect the tree protective fencing and ground protection boards prior to any development works. Confirm tree protection completed to the standard specified in this method statement.	 <i>Signed and Dated</i>
Site visit 2: Supervision of contractors during construction within RPA of retained trees.	 <i>Signed and Dated</i>
Site visits - Monthly: Supervise any other sensitive operations, if required, as they arise in relation to trees.	 <i>Signed and Dated</i>
Additional Comments/ Required Actions:	

Additional Comments/ Required Actions:

Signed and Dated

Inset 1: Example of Tree Protection Fencing



Inset 2: Example of Tree Protection Fencing Sign



Inset 3: Ground Protection Boards

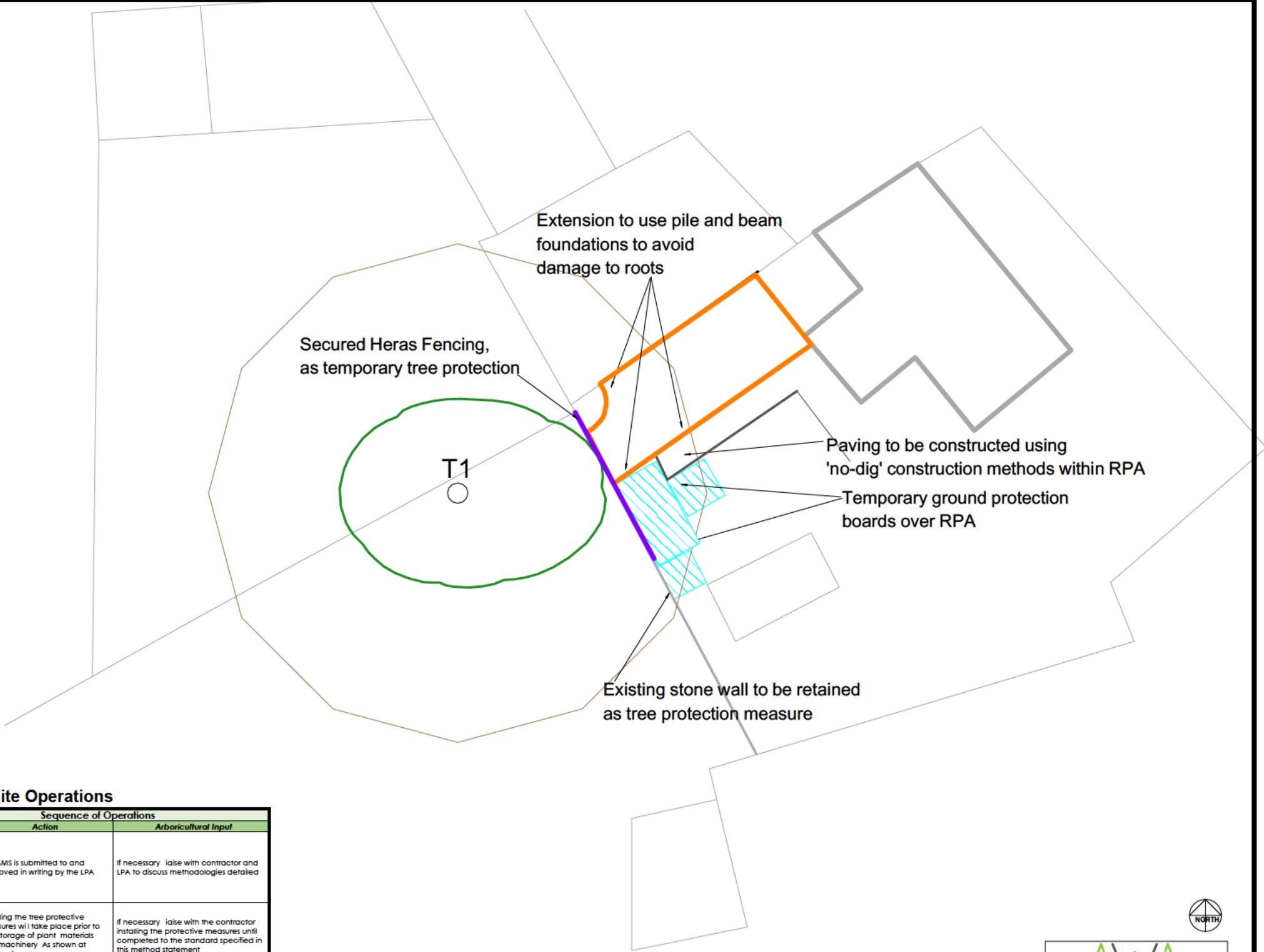


Inset 4: Site Operations

Sequence of Operations		
Stages	Action	Arboricultural Input
1 Approval	This AMS is submitted to and approved in writing by the LPA	If necessary liaise with contractor and LPA to discuss methodologies detailed
2 Tree Protection	Installing the tree protective measures will take place prior to any storage of plant materials and machinery As shown at Appendix 4	If necessary liaise with the contractor installing the protective measures until completed to the standard specified in this method statement
3 Site Meeting	Following installation of tree protection measures the LPA shall be invited to inspect the fencing and discuss any other site operations that have implications for trees	Meeting with a representative of the LPA and the site manager. Alternatively contractor can confirm the fencing is as specified by taking photographs of the tree protection measures
4 Construction	Undertake the construction of the new development including specialist pile and beam foundations and 'no-dig' paving construction methods	Installation of specialist pile and beam foundations and 'no-dig' construction methods within the RPA shall be carried out under arboricultural supervision and written record kept. If necessary liaise with the local authority and the site foreman to ensure any issues are adequately resolved
5 Site Finishing	Removal of tree protective fencing must only be undertaken when all site traffic and machinery has left the site	If acceptable to the LPA, the contractor can take photos of the site to give to the LPA to gain approval for the removal of protective measures

Inset 5: Tree Data

Tree Species			Measurements					Crown (m)				Tree Condition								Value	Management	
Tree ID	Common Name	Latin Name	Maturity	Height (m)	Stems	Stem Diameter (mm)	Estimated	Ave Height	N	E	S	W	Roots	Stem	Crown	Comments	Physiological	Structural	Life Expectancy	Amenity	Category	Works
T1	Ash	Fraxinus excelsior	Mature	21	1	880	No	9	4	8.5	4	5	No major visible defects	Single stemmed, Vertical, Minor cavities, Old pruning wounds with minor decay.	Slightly unbalanced crown. Previously reduced with many pruning wounds	Situated in adjacent land. Previously heavily reduced to approx. 7m.	Fair	Fair	20 to 40 yrs.	Moderate	B	No action required. Crown could be reduced back to near old pruning wounds in the future.



AWA TREE CONSULTANTS

Appendix 4:
TREE PROTECTION PLAN

White Knowle, 59 Cliffe Road, HD8 8AG
Ref: AWA3175
BRITISH STANDARD 6837:2012
SCALE: 1:200 PAPER: A3

	TREES TO BE RETAINED
	TREES FOR REMOVAL
	TREE STEM
	TREE PROTECTION FENCING
	GROUND PROTECTION
	RPA: ROOT PROTECTION AREA