



*Trees adjacent site entrance*

# ARBORICULTURAL IMPACT ASSESSMENT

**Site:** The Pottery, Fox Furlong,  
Oddington  
**Postcode:** GL56 0XJ  
**Client:** Henge Project Management Ltd

**Document Ref:** 270-FOX-RPT-AIA-FP  
**Revision No** 2  
**Date:** 11<sup>th</sup> December 2023  
**Report Status:** For Planning  
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**Qualifications:** BSc Hons MSc MArborA MICFor  
**Position:** Director

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## DOCUMENT CONTROL

Plans and Schedules to be read in conjunction with this report:

Type	Reference	Version
<b>Tree Schedule</b>	270-FOX-INF-SCH-FD	1
<b>Tree Constraints Plan</b>	270-FOX-DRW-TCP-FD	1
<b>Arboricultural Implications Plan</b>	270-FOX-DRW-AIP-FP	1
<b>Draft Tree Protection Plan</b>	270-FOX-DRW-TPP-FP	1

Third Party Reports relied upon for the Arboricultural Impact Assessment:

Document Name	Authoring Company	Document Reference
<b>Topographical Survey</b>	The Survey Association	22672-22-01
<b>Block Plan</b>	Courtingtons Architecture & Landscape	S952-A-02
<b>Location Plan</b>	Courtingtons Architecture & Landscape	S952-A-01
<b>Proposed Site Plan</b>	Courtingtons Architecture & Landscape	PL952-A-03
<b>Proposed Elevations</b>	Courtingtons Architecture & Landscape	PL952-A-06
<b>Proposed Sections</b>	Courtingtons Architecture & Landscape	PL952-A-05
<b>Proposed Visualisations</b>	Courtingtons Architecture & Landscape	P952

### Version Control

Date	Notes	Author	Version
<b>06.12.2023</b>	Draft for review by client	SW	1
<b>11.12.2023</b>	Issued to supplement planning submission	SW	2

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### NON-TECHNICAL SUMMARY

<b>Site Name &amp; Address</b>	The Pottery, Fox Furlong, Oddington, Moreton-In-Marsh, Gloucestershire GL56 0XJ		
<b>Client Name</b>	Henge Project Management Ltd		
<b>Local Planning Authority</b>	Cotswold District Council		
<b>Development Proposal</b>	Demolition of existing pottery studio and erection of new dwelling and associated new vehicular access		
<b>Summary of existing tree stock</b>	<b>Category A</b>	<b>Category B</b>	<b>Category C</b>
	0	6	12
<b>Summary of impacts to existing tree stock</b>	<b>Tree Removals</b>	<b>Tree Pruning to facilitate development</b>	<b>Incursions to Root Protection Area</b>
	H2 (partial), T3, G4, T9, T10 & T11	T6, G8, T12, T13, T15 & T17	T6, T7 & T12
<b>Relevant Planning Policies</b>	<b>Local Planning Policy</b>		<b>National Planning Policy</b>
	<u>Cotswold Local Plan 2011-2031</u> EN7 – Trees, hedgerows and woodlands		<u>NPPF Paragraphs</u> Para 131 – Right Tree Right Place Para 174 – Ecosystem services Para 180 – Irreplaceable habitat
<b>Statutory Considerations</b>	<b>Conservation Area</b>		<b>Tree Preservation Order</b>
	No		No
<b>Non-Statutory Considerations</b>	<b>ASNW</b>		<b>Veteran or ancient trees</b>
	No		No

## EXECUTIVE SUMMARY

I have been instructed to provide an assessment of the impact from a development proposal on the existing tree stock at Fox Furlong, Oddington, Moreton-In-Marsh, GL56 0XJ.

The development is for the demolition of existing pottery studio and erection of new dwelling and associated new vehicular access.

A tree survey has been completed following the guidance provided by BS5837 (2012) *Trees in relation to design, demolition and construction – Recommendations*. A total of 19 trees, groups of trees or hedges have been recorded within the survey area, and all have been categorised as part of a quality assessment to determine the extent of the tree related constraints on site.

- 5 trees and 1 woodland have been assessed as being of moderate quality and condition (Category B)
- 6 trees, 3 groups of trees and 3 hedgerows have been assessed as being of low quality and condition (Category C)
- 1 tree has been assessed as being of poor quality and condition (Category U).

No trees have been identified as either ancient or veteran specimens, nor are any designated as ancient woodland.

An online search confirms that the site is not within a Conservation Area and no trees are subject to a Tree Preservation Order.

This development proposal requires the removal or partial removal of 6 trees, groups of trees or hedgerows. One of these would be recommended for removal irrespective of this design scheme due to such poor physiological and structural condition. The majority of the remaining trees are of low arboricultural quality, with only one moderate quality tree requiring removal. These trees are prosed for removal as they are within the footprint of the new dwelling.

A total of 7 trees or groups of trees require pruning to facilitate this design scheme. This pruning generally consists of minor crown lifts or lateral reductions to provide sufficient space to enable the construction process and alleviate potential nuisance post-construction.

All retained trees will be protected throughout the construction phase through the use of tree protective fencing.

No details of replacement planting have been provided, but there is the provision of a new green roof and there is sufficient space within the wider site to accommodate compensatory planting.

National planning policy seeks to protect irreplaceable habitat such as ancient woodland, from development related harm, and local planning policies seek to achieve a similar outcome. Additionally, local planning policy seeks to ensure that trees of biodiversity value, landscape or historic environmental importance are protected and incorporated within design schemes. No ancient or veteran specimens were recorded on this site and tree removals have been targeted at those trees of lowest arboricultural quality. Protection measures have been proposed to ensure retained trees remain viable in the long-term. As such, this scheme is compliant with both national and local planning policy insofar as it relates to trees.



## 1. INTRODUCTION

### Instruction

1.1 I have been instructed by JPPC Chartered Town Planners (on behalf of Henge Project Management Ltd) to undertake a tree survey to accompany a planning application related to the site.

### Scope

1.2 The scope of this instruction has been to:

- Undertake a tree survey to determine the range, age and quality of trees across the site;
- Provide advice and guidance to the project design team on all matters relating to trees (excluding ecological matters or landscape design); and
- Prepare the required reports and plans to accompany a full planning application to Cotswold District Council (the local planning authority) for the proposed development.

1.3 The tree survey was to be conducted in accordance with the guidance provided in BS5837 (2012) *Trees in relation to design, demolition, and construction - Recommendations* ('BS5837').

1.4 All plans and reports following the tree survey were also to follow the recommended processes defined in BS5837 and any other industry advice that provides best practice guidance for managing the relationship between trees and construction processes.

### Site Description

1.5 Fox Furlong ('the Site') is located on the western outskirts of Oddington, bordering farmland to the west and north. It is centred at OS Grid Reference SP221255 and around postcode GL56 0XJ. An image of the Site in Plate 1 shows the extent of the project boundary.



Plate 1: The site boundary (Source: Google Earth 30.11.2023)

- 1.6 The Site is approximately 1,135 m<sup>2</sup> (0.28 acres) in size and consists of a small access drive through a boundary hedgerow, material storage area and existing building.
- 1.7 The majority of trees are associated with the boundaries of the site. A newly planted hedge is present along the northern boundary, with several mature specimens and mature boundary hedgerow to the east. A dense line of trees borders an offsite Public Right of Way (PRoW) to the south and a small copse of trees are present to the west.
- 1.8 The majority of trees are of native or naturalised species and are generally mature or young in nature.

#### **Caveats and Limitations**

- 1.9 While all reasonable efforts have been made to identify the condition and quality of the trees on site, the statements made in this report and schedules do not take into account the effects of extreme weather events, vandalism or accidents, or changes to the site that may affect trees that have taken place since the date of the survey.
- 1.10 I can confirm that the survey has been undertaken in accordance with industry best practice recommendations and guidance, but no warranty is provided in relation to changes to the site that occur after the date of the survey that may have an impact on the tree stock present at the time of the survey.
- 1.11 Unless stated differently in captions, all photographs used in this report have been taken by the author at the time of the site visit.
- 1.12 The comments and observations made within this report will cease to be valid either within two years of the date of the survey (unless specifically stated elsewhere within the report), or when site conditions change or any works to trees take place that have not been specified within this report, whichever is the sooner.
- 1.13 The survey has been undertaken with the benefit of a topographical survey undertaken by The Survey Association in November 2022 (Ref: 22672-22-01). The location of all trees and groups detailed in this report have been taken from the topographical survey and no warranty is given as to the accuracy of this data.
- 1.14 This survey has been limited to identifying arboricultural features within the Site. It does not include any ecological assessment or landscape appraisal of trees, groups, woodlands or hedges beyond the scope of BS5837.
- 1.15 Although I am occasionally involved in landscape, ecological and planning issues, I have no formal qualifications in these areas and any comments made in this report to such matters are limited to the general context in view of my familiarity through my day-to-day work, and professional advice should be obtained on these matters where required.

## **2. TREE SURVEY AND CONSTRAINTS**

### **Tree Survey**

- 2.1 I carried out the tree survey on 15<sup>th</sup> November 2023.
- 2.2 The weather at the time of the assessment was overcast, but visibility was good.

2.3 I was unaccompanied throughout the duration of the tree survey.

#### **Tree Survey Methodology**

2.4 The survey has been carried out as a ground based visual assessment only following the guidance provided in BS5837.

2.5 The information collected during the survey has been used to assist in the design of the site. This report includes:

- A schedule of the relevant trees to include base line data and quality assessment; and
- A plan showing the extent of constraints presented by the existing tree stock (herein after referred to as a Tree Constraints Plan (TCP)) that provides illustrative information on the constraints, for consideration during the design of the site.

2.6 The purpose of the tree survey has been to provide an assessment as to the quality and non-fiscal value of the trees on Site. This then allows guidance to be given to the design team to inform the site design and layout.

#### **General Data Capture**

2.7 For reference, individual trees are identified with the letter T and associated number on the Tree Schedule and on a plan showing the extent of tree constraints. The stem diameter of the trees on Site was recorded using a rounded down diameter tape or a digital hypsometer, measured at 1.5m above ground level. Measurements were recorded in millimetres, rounded to the nearest 10mm.

2.8 The height of the subject trees was estimated to the nearest metre.

2.9 Maximum crown spread of the subject tree was measured from the edge of the trunk to the tips of the live lateral branches taken at four compass points (N-E-S-W) using a Leica Disto digital laser measure. Crown spread measurements were taken in metres.

2.10 Tree age was estimated from visual indicators (such as tree size and appearance of bark) which is provided as a provisional guide.

2.11 Groups of trees were identified with the letter G and number on the associated schedule and plans. Crown spread was assessed using topographical data to position the extents. Stem diameter of groups of trees was set as an average stem diameter of the trees within these individual groups and a maximum height of the tallest tree within the group.

2.12 Hedges are identified with the letter H and number on the associated schedule and plans. Each hedgerow was surveyed recording the species, the maximum height and the average width of the hedge. Any individual trees present within the hedgerow were recorded as an individual tree.

2.13 If direct access to a tree was not possible, estimations from appropriate vantage points were taken. Any limitations or estimations are presented within the survey limitations section and noted in the associated schedules and plans and identified with a '#' suffix after the reference number.



### Categorisation

2.14 In compliance with Table 1 of BS5837 the trees surveyed have been categorised according to their arboricultural quality and value (non-fiscal) which is summarised below in Table 1.

Table 1 - Summary of BS5837 categorisation colours

Category	Colour	Description
A	Green	Trees of high quality with an estimated remaining life expectancy of at least 40 years
B	Blue	Trees of moderate quality with an estimated remaining life expectancy of at least 20 years
C	Grey	Trees of low quality with an estimated remaining life expectancy of at least 10 years
U	Red	Those trees in such a condition that they cannot realistically be retained as living trees in the context of the current land use for longer than 10 years

### 3. ARBORICULTURAL ASSESSMENT

#### Tree Quality

3.1 A summary of my assessment of the quality of the trees is presented in Table 2.

Table 2 - Summary of tree quality on site

	Category A	Category B	Category C	Category U	Total
<b>Group</b>	0	0	3	0	<b>3</b>
<b>Hedge</b>	0	0	3	0	<b>3</b>
<b>Tree</b>	0	5	6	1	<b>12</b>
<b>Woodland</b>	0	1	0	0	<b>1</b>
<b>Total</b>	<b>0</b>	<b>6</b>	<b>12</b>	<b>1</b>	<b>19</b>

#### Above Ground Tree Constraints – Tree Canopies

3.2 The above ground constraints posed by canopy spread are plotted as a continuous line around the tree, with the extent of the canopy spread hatched in the corresponding BS5837 retention category colour.

#### Below Ground Constraints - Root Protection Area

3.3 The Root Protection Areas (RPA) is the minimum area around a tree deemed to contain sufficient roots and rooting volume to maintain the tree’s viability, and where the protection of the roots and soil structure is treated as a priority. This does not account for the actual depth of the soil within the area, nor does it account for any requirement for working space during development.

3.4 The RPA of each tree has been calculated in accordance with Section 4.6.1 in BS5837. This is determined through multiplying the stem diameter of each tree, measured at 1.5m above

ground level, by a factor of 12. The below ground constraints posed by the RPA have been plotted on the TCP as a magenta line with the text RPA inscribed.

- 3.5 The RPA is initially plotted as a circle with the tree in the centre. Where site conditions may influence the shape and size of the RPA (e.g. the presence of roads, buildings or other structures), the shape and size of the RPA can be amended in accordance with Section 4.6.3 in BS5837.
- 3.6 One tree (T11) has had the RPA offset to account for an existing low-retaining wall along the southern elevation of the existing building. It is likely that this has restricted root growth to the north and the RPA has been adjusted accordingly.

#### **4. STATUTORY AND OTHER CONSTRAINTS**

##### **Statutory Considerations – Tree Protection**

- 4.1 Part VII of The Town and Country Planning Act (1990) (the Act) (Section 197) obligates local planning authorities to ensure that, where appropriate, provision is made for the preservation and planting of trees.
- 4.2 The protection is provided in the form of Tree Preservation Orders (TPO) (Section 198), or by virtue of a tree being located within a Conservation Area (Section 211).
- 4.3 The Site is located within Oddington village, and Cotswold District Council is the Local Planning Authority.

##### ***Tree Preservation Order***

- 4.4 The Town and Country Planning (Tree Preservation Order) (England) Regulations 2012 prohibits any works to trees that are subject to a TPO without the written consent of the local planning authority. There are exemptions to the regulations relating to planning and the conditions of the trees. No works can be undertaken on a protected tree until the authority has granted consent in writing.
- 4.5 Cotswold District Council holds online records of tree preservation orders. A search of the online data shows that there are no trees subject to a preservation order within or near the boundary of the site.

##### ***Conservation Area***

- 4.6 Section 211 of the Act also provides protection to trees that are located within a Conservation Area. Prior to any works being undertaken on such trees the local planning authority must be informed. Once notice has been given, the authority has up to six weeks to consider whether it wishes to object to the works. After this period and in the absence of any response from the authority, works can be undertaken.
- 4.7 Cotswold District Council holds details of conservation areas within the district in a searchable digitised format which can be searched online. A search of the records shows that the Site is not within the Oddington conservation area.

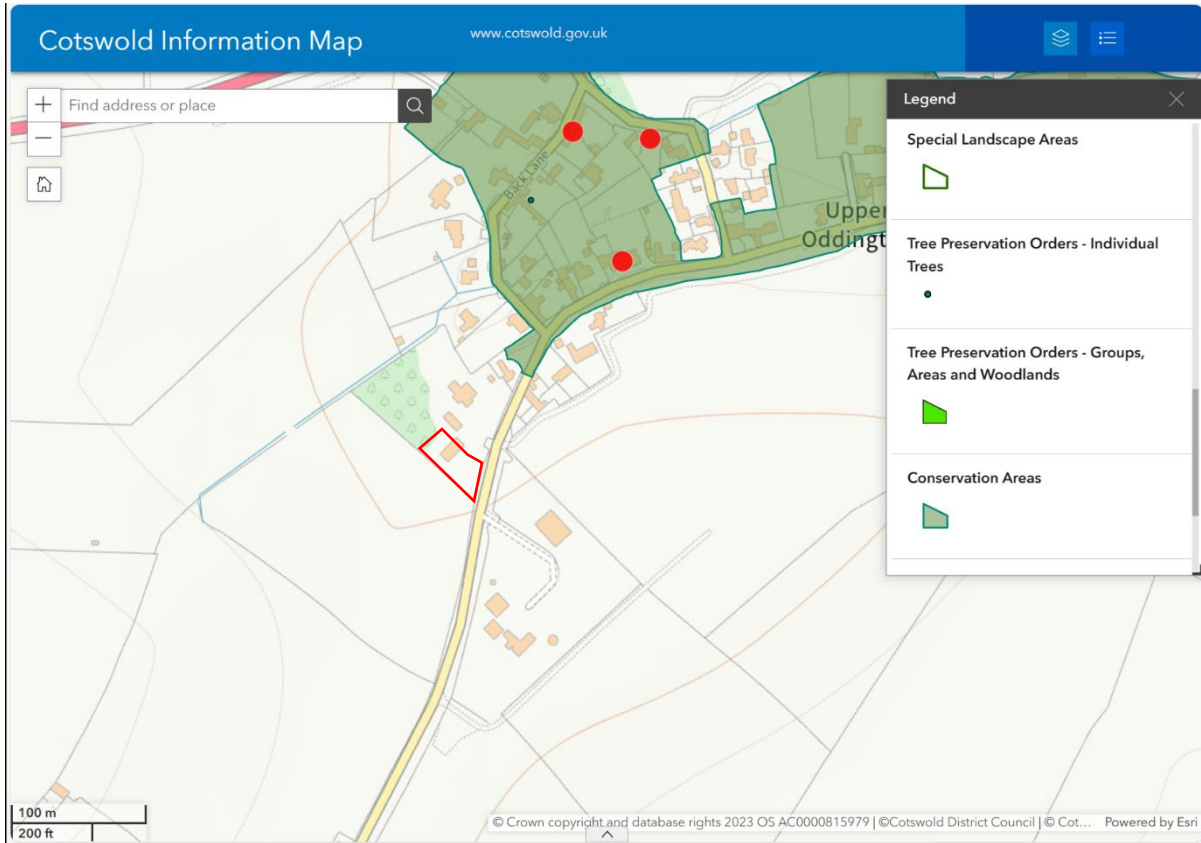


Plate 2: TPO and Conservation Area Search (Source: cotswold.gov.uk (accessed 30.11.2023))

## Forestry Act

- 4.8 The Forestry Act (1967) requires that permission is obtained from the Forestry Commission for the felling of any trees in England or Wales. There are certain exceptions from this requirement including the felling of trees required to allow a planning permission to be carried out<sup>1</sup>.

*An exception applies where the felling of trees is immediately required for the purpose of carrying out development that is authorised by the approval of full planning permission (granted, or deemed to be granted, under the Town and Country Planning Act 1990, including any planning conditions or s.106 agreements attached to a full planning consent). The approved planning permission will detail the extent of the approved development and may also define the trees that are allowed to be felled or those that must be retained. Any tree felling outside that boundary will require a licence.*

*The development exception can relate to individual or groups of trees or woodland, and for trees to be exempt from the need for a felling licence at least one of the following conditions must be met:*

- *trees must be explicitly identified in the planning consent as being permitted for removal;*
- *the trees must stand within the footprint of the proposed development; or*
- *the removal of the trees must be necessary in order to carry out the proposed development (e.g. they block an access route to which there is no alternative, or lie in*

<sup>1</sup> [Tree Felling- Getting Permission \(Forestry Commission\)](#)

*such close proximity to the proposed development that they prevent the carrying out of that development).*

*The exception does not simply extend to all trees within the boundary of the fully approved proposed development.*

### Non-statutory considerations

- 4.9 An online search has also been undertaken to determine any non-statutory designations at the Site that may be a consideration in relation to trees. This has revealed that the Site borders an area of Priority Habitat (Deciduous Woodland) (see Plate 3 below).
- 4.10 This designation does not confer any additional protection measures but may be considered as part of the planning process.

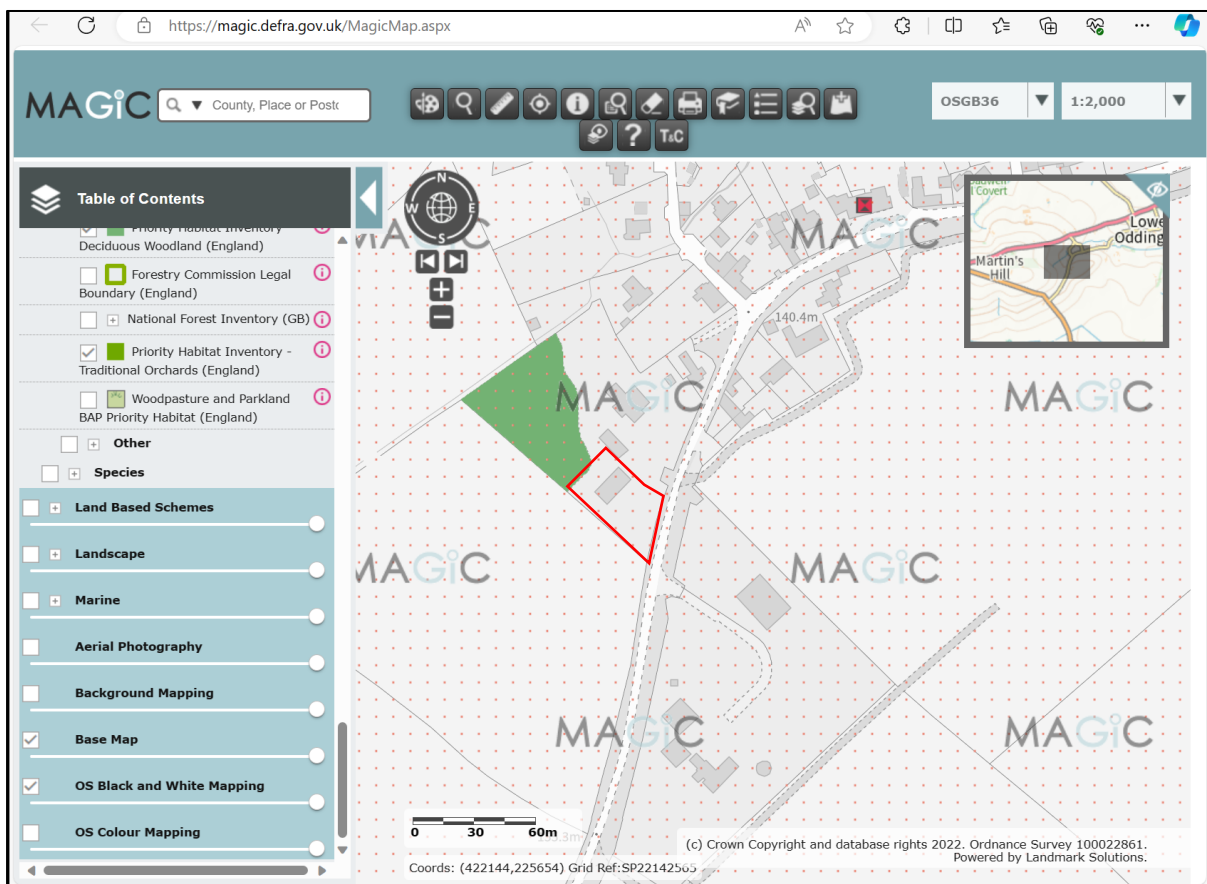


Plate 3: Screenshot from [magic.defra.gov.uk](https://magic.defra.gov.uk) (accessed 30.11.2023) showing Priority Habitat areas

### Soils

- 4.11 Paragraph 4.3 of BS5837 recommends that a soil assessment be completed by a competent person to inform decisions relating to the RPA, tree protection, new planting design and foundation design. I am not able to provide this assessment as I have no formal qualifications in this area, and professional advice should be taken to provide any detailed reports.

- 4.12 However, generic soil data is freely available from online sources such as the Geology of Britain viewer<sup>2</sup> which can provide a broad indication of the underlying geology of a site. The results of a search for this Site describes the geology as being Dyrham Formation – Siltstone and mudstone, interbedded. The soil is described as being slowly permeable seasonally wet slightly acid but base-rich loamy and clayey.<sup>3</sup> This could weather to produce a shrinkable clay soil and therefore guidance on foundation design in relation to trees, such as NHBC Chapter 4.2, may need to be consulted if site specific soil tests confirm the presence of shrinkable clay.
- 4.13 The soil type will have an impact on any recommendations for replacement or enhancement planting that may form a part of any landscape strategy for a planning application.

## 5. NATIONAL AND LOCAL PLANNING POLICIES

### National Planning Policy Framework 2023

- 5.1 National Planning Policy is currently defined by the National Planning Policy Framework (NPPF). This provides the most current and up to date planning guidance.
- 5.2 At the heart of the NPPF is a presumption in favour of sustainable development, and specifically states that for decision making, the LPA should be approving development proposals that accord with the development plan without delay.
- 5.3 Section 12 of the NPPF recognises the importance of integrating trees into urban environments as part of achieving well-designed places. While the primary focus is on new tree planting, the importance of retaining existing trees and incorporation into proposals is a driving factor, stating that:

*“Trees make an important contribution to the character and quality of urban environments, and can also help mitigate and adapt to climate change. Planning policies should ensure that new streets are tree-lined, that opportunities are taken to incorporate trees elsewhere in developments (such as parks and community orchards), that appropriate measures are in place to secure the long-term maintenance of newly-planted trees, and that existing trees are retained wherever possible. Applicants and local planning authorities should work with highways officers and tree officers to ensure that the right trees are planted in the right places, and solutions are found that are compatible with highways standards and the needs of different users.” (Paragraph 131)*

- 5.4 In addition, Section 15 of the NPPF recognises the importance of conserving and enhancing the natural environment, and specifically acknowledges the role of trees and woodland in the provision of natural capital and ecosystem services.
- 5.5 It further acknowledges the importance of ancient woodlands and veteran trees for habitats and biodiversity and requires that planning consent should be refused where development schemes require the removal of such features unless there are wholly exceptional reasons, stating that:

*“development resulting in the loss or deterioration of irreplaceable habitats (such*

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<sup>2</sup> <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/>

<sup>3</sup> <https://www.landis.org.uk/soilscapes>



*as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists.” (Paragraph 180, c)*

**Local Planning Policy**

- 5.6 The LPA has a duty to ensure that local matters are considered through the planning process, and this includes protection of trees.
- 5.7 Cotswold District Council has prepared a specific development plan which includes trees and the natural environment. This plan is the Cotswold District Local Plan 2011-2031.
- 5.8 The policies within the Local Plan that are relevant to trees are summarised in Table 3.

*Table 3: Summary of Local Planning Policy*

Policy No	Title	Description
EN7	Trees, hedgerows and woodlands	<p>1. Where such natural assets are likely to be affected, development will not be permitted that fails to conserve and enhance:</p> <ul style="list-style-type: none"> <li>a) trees of high landscape, amenity, ecological or historical value;</li> <li>b) veteran trees;</li> <li>c) hedgerows of high landscape, amenity, ecological or historical value; and/or</li> <li>d) woodland of high landscape, amenity, ecological or historical value.</li> </ul> <p>2. Where trees, woodland or hedgerows are proposed to be removed as part of development, compensatory planting will be required.</p> <p>3. Development proposals affected by (2) above should, where appropriate, have regard to the potential for new or extended woodland to assist in carbon storage and to be a potential local source of biomass or biofuel.</p>

**6. DEVELOPMENT PROPOSAL**

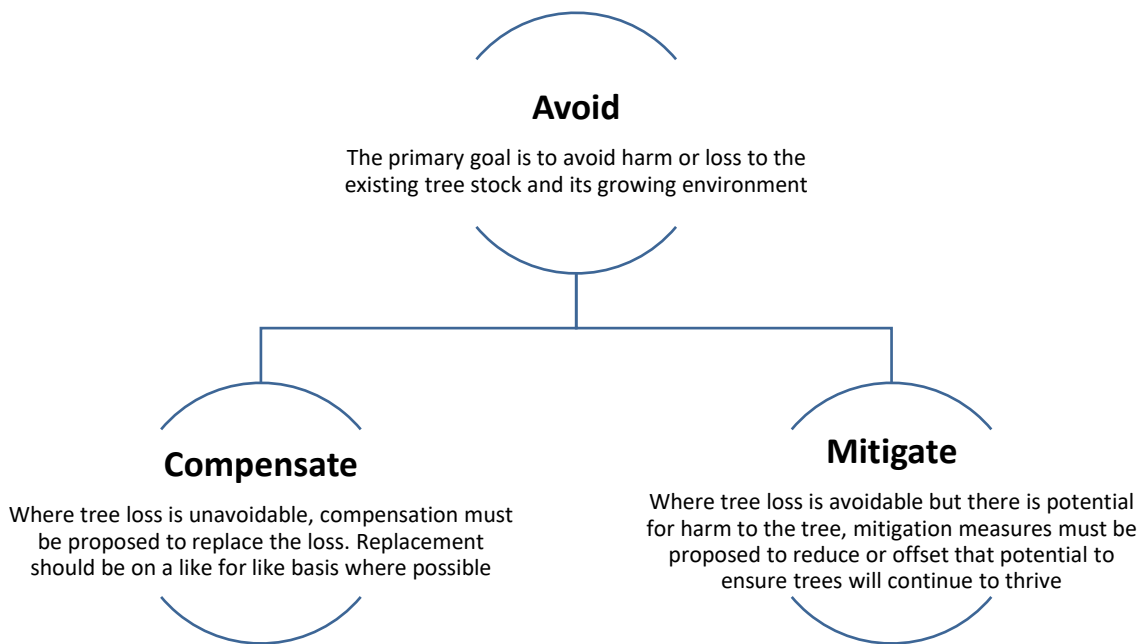
- 6.1 The proposed development is for the demolition of existing pottery studio and erection of new dwelling and associated new vehicular access and courtyard.

**7. ARBORICULTURAL IMPACT ASSESSMENT**

**General Considerations**

- 7.1 Development can have an adverse impact on trees and other woody vegetation within a site, which can result in:
  - i. Immediate tree removal to facilitate the footprint of a new development;
  - ii. Potential future tree loss through the early decline of trees due to soil compaction or damage;
  - iii. Root disturbance and damage within a tree’s rooting area; and
  - iv. Canopy removal or damage due to plant movement.

- 7.2 Best practice guidance proposed by the arboricultural sector seeks to ensure that there is a harmonious relationship between trees and development that will ensure that both trees and structures can be retained in the long term<sup>4</sup>.
- 7.3 Where practical, development should seek to work with the natural environment, and development schemes that might result in harm should follow a mitigation hierarchy to ensure harm is minimised.
- 7.4 To assist the planning decision makers, this scheme should use the following mitigation hierarchy to consider the influence that trees might have on site design while also continuing to make a positive contribution to the site and local character of the area, both during and post development:



**Assessing Impacts**

- 7.5 The impact of any tree loss is assessed against a criterion in relation to the arboricultural significance of the loss, the detail of which is provided in Table 4. This table is not related to the quality categories provided in BS5837 but has a closer relationship to the sub-categories through assessing the impact that tree loss may have at the Site and its setting in the wider locality. This assessment is also useful in considering the impact of any potential loss against planning policy.

*Table 4 - Impact Assessment definitions*

Scale of Impact	Definition
Major	Total loss or major/substantial alteration to key trees/features of the baseline (pre-development) conditions such that the post development character or composition will be fundamentally changed.

<sup>4</sup> BS5837 (2012) Page 1

Scale of Impact	Definition
	This would generally apply to tree(s) that are of exceptional or high quality and condition and their loss would be irreplaceable. This would also include trees that have been categorised as being Ancient or Veteran, trees are rare examples of their species and or trees that offer significant amenity value to the character and setting of the area.
<b>Moderate</b>	<p>Loss or alteration to one or more key trees/features of the baseline conditions such that post development character or composition of the baseline will be materially changed.</p> <p>This would generally apply to tree(s) that are of good quality and condition and make a notable contribution to the setting or character of the locality (visual amenity). This may include trees that would be hard to replace but for which there could be some mitigation over a medium timeframe (20-40 years).</p>
<b>Minor</b>	<p>A minor shift away from baseline conditions. Change arising from the loss/alteration will be discernible/detectable but not material. The underlying character or composition of the baseline condition will be similar to the pre-development circumstances/situation.</p> <p>This would generally apply to tree(s) that are of low quality and condition and/or their loss would have low impact on the locality. These trees would be relatively easy to replace within a short timeframe (10-20 years).</p>
<b>Negligible</b>	<p>Very little change from baseline conditions with any change barely distinguishable.</p> <p>This would generally apply to tree(s) that are of low quality and condition, and/or their loss would barely be noticeable. Any replacement planting would offer an improvement to the setting of the site in a very short time frame (1-10 years)</p>
<b>No Change</b>	There is no change to the baseline conditions to trees from the development proposal.

### Tree Retention and Removal



- 7.6 The proposed development will result in the loss or partial loss of six trees, groups of trees or hedgerows.
- 7.7 A summary of the tree losses is provided in Table 5 and specific details of these losses, the reason for the removals and the impact are detailed in Table 6 below. The trees have been highlighted on the Arboricultural Implications Plan (AIP) as red hatch with a dashed redline.

Table 5: Summary of tree losses



	Category A	Category B	Category C	Category U	Total
<b>Tree</b>	-	-	T9, T10	T3	<b>3</b>
<b>Hedgerow</b>	-	-	H2 (partial)	-	<b>1</b>
<b>Group</b>	-	T11	G4	-	<b>2</b>
<b>Total</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>1</b>	<b>6</b>





Table 6 - Summary of Tree Removals

Tree No	Reason for Removal	Impact	Photograph
<b>Partial Removal</b>			
<p><b>H2</b> <b>(Leylandii)</b></p>	<p>Approximately 4.5m of this hedgerow is proposed for removal to facilitate the construction of a new access drive into the site.</p>	<p>This hedgerow is located on the eastern boundary of the site and provides a low-level screen to the adjacent road. Part of this hedgerow has already been removed to facilitate vehicular access and the removal of an additional short section will have negligible impact on the immediate site or wider community.</p>	
<b>Full Removal</b>			
<p><b>T3</b> <b>(Ash)</b></p>	<p>This tree is proposed for removal due to such poor structural and physiological condition. The tree is suffering from ash dieback symptoms, with decline in the upper canopy and varying sized deadwood throughout. Due to proximity to the road and proposed new access and building, this tree is recommended for removal as good arboricultural practice.</p>	<p>This is a relatively prominent tree on the boundary, but as removal would be recommended irrespective of this design scheme the overall impact is considered negligible.</p>	



Tree No	Reason for Removal	Impact	Photograph
<b>G4</b> <i>(Prunus sp)</i>	This group of trees is proposed for removal to facilitate the construction of new access drive into the site and provide sufficient working space for the new dwelling.	This group of trees consists of young, self-set specimens located internally to the site. Removal will have negligible impact on the immediate site or wider community.	 <p>A photograph of a young tree with sparse green and yellowing leaves. The tree is situated in a wooded area with a wooden bench or structure nearby. The photo includes a compass overlay at the top showing NE and SE directions, and a data overlay at the bottom with coordinates: 90°E (T), 51°55'39"N, 1°40'48"W ±26ft ▲491ft. Text at the bottom left identifies the tree as G4, Steve Westmore-Tree Frontiers Ltd. Text at the bottom right identifies the location as Fox Furlong, Oddington and the date as 15 Nov 2023, 12:12:00.</p>
<b>T9</b>	These trees are proposed for removal to facilitate sufficient space for the new dwelling.	These trees are of low arboricultural quality and are located internally to the site, with the boundary group to the south retained. As such, removal will have negligible impact on the immediate site or wider community.	 <p>A photograph of a larger tree with dense green foliage. The tree is in a wooded area with a wooden structure and a tarp in the foreground. The photo includes a compass overlay at the top showing S, SW, and W directions, and a data overlay at the bottom with coordinates: 229°SW (T), 51°55'39"N, 1°40'48"W ±13ft ▲491ft. Text at the bottom left identifies the tree as T9, Steve Westmore-Tree Frontiers Ltd. Text at the bottom right identifies the location as Fox Furlong, Oddington and the date as 15 Nov 2023, 12:30:56.</p>

Tree No	Reason for Removal	Impact	Photograph
T10	These trees are proposed for removal to facilitate sufficient space for the new dwelling.	These trees are of low arboricultural quality and are located internally to the site, with the boundary group to the south retained. As such, removal will have negligible impact on the immediate site or wider community.	 <p>T10 Steve Westmore-Tree Frontiers Ltd Fox Furlong, Oddington 15 Nov 2023, 12:31:07</p>
T11	This tree is proposed for removal to facilitate the new dwelling.	This tree is of moderate quality, although will only be partially visible externally to the site. Its removal will have a minor impact on the immediate site and wider community.	 <p>T11 Steve Westmore-Tree Frontiers Ltd Fox Furlong, Oddington 15 Nov 2023, 12:31:21</p>

**Facilitation Tree Pruning**

7.8 This design scheme will require the facilitation pruning of seven trees or groups of trees summarised in Table 7 below. Trees within the table are colour coded in accordance with their BS5837:2012 retention category.

Table 7 - Summary of Facilitation Tree Pruning

Tree Number	Proposed Pruning Works	Reason for Pruning
T6	Crown lift to 3.5m above ground level to western canopy and removed deadwood over road east.	To facilitate necessary space to construct new hard landscaping and good arboricultural practice.
G8	1-2m lateral crown reduction to northern canopy.	
T12	1-2m lateral crown reduction to southeastern canopy.	
T13	1-2m lateral crown reduction to eastern canopy.	
T15	1m lateral crown reduction to southeastern canopy.	
T17	1-2m lateral crown reduction to western canopy.	

7.9 All pruning work will be undertaken in accordance with industry best practice and guidance, namely BS3998:2010 – *Tree Works: Recommendations*.

**Development Impacts within the Root Protection Area**

7.10 For ease of reference, where there are encroachments within the RPAs of retained trees, these have been illustrated on the attached AIP with light orange hatching.

7.11 A total of 3 trees (T3, T7 and T12) have the potential to be impacted through encroachment within the RPAs. This is through new structures or hard landscaping.

7.12 While encroachment to the RPAs is undesirable, the retention of these trees to promote urban greening of the site is integral to the design principle of the site layout and therefore has been deemed preferable to the tree’s loss.

**The Impact of Structures**

7.13 One tree (T12) has the potential be impacted through the provision of a new structure within the RPA. This is decking around the western façade of the new building.

7.14 The decking will encroach the RPA by approximately 3m<sup>2</sup>. This equates to 5% of the total RPA.

7.15 Not only is this encroachment minimal, but it is assumed that the decking can be built without the need for concrete foundations and will be formed from timber posts driven into the ground.

This method of construction will further minimise the potential disruption to the rooting environment of this tree.

- 7.16 Due to such a minor encroachment and low likelihood of significant harm, no specific construction methodologies (i.e. micro-piles etc.) have been recommended. However, the construction process will need to be undertaken in such a way to ensure that vehicle access to the west (closer to the tree) is prohibited.
- 7.17 Provided that mitigation measures are implemented correctly the overall impact to these trees will be negligible and not have a significant adverse impact on their longevity.

***The Impact of Hard Landscaping***

- 7.18 A total of two trees (T6 and T7) have the potential to be impacted by the provision of new low-retaining wall. This retaining wall is proposed as part of the new access driveway and is required due to the change in levels within this part of the site.
- 7.19 A summary of encroachments is detailed in Table 8 below. Tree reference numbers have been colour coded in accordance with the BS5837 retention category.

*Table 8 - Summary of RPA encroachment from new hardstanding*

Tree Number	Total RPA (m <sup>2</sup> )	Percentage of Total RPA to be encroached (%)
T6	102m <sup>2</sup>	4%
T7	137m <sup>2</sup>	5%

- 7.20 Given the proposed works there are minimal mitigation measures that can be implemented to minimise disruption to the rooting environments of these trees. However, the overall area is minimal and both trees have areas contiguous with the RPAs (north and south) to accommodate future root growth as a result of minor impact.
- 7.21 In addition to the above, the remaining RPAs will be protected from construction activity to ensure that the underlying soil retains the ability to support roots.
- 7.22 Provided that mitigation measures are implemented correctly the overall impact to these trees will be negligible and not have a significant adverse impact on their longevity.

***Impact of Underground Services***

- 7.23 No details have been provided for provision of underground services (i.e. power cables, surface water, etc.). It is anticipated that the existing utilities that serve the current building will be utilised.
- 7.24 Should new services be required these should be routed to avoid the RPAs of retained trees and should additional underground services be required within the RPAs of retained trees then further assessment will be required.

### **Compensation for tree loss**

- 7.25 No details have been provided for the provision of replacement planting to compensate for the loss of trees as a result of this design proposal. However, there is the provision of a new green roof and there is sufficient space to accommodate a small degree of tree planting within the redline boundary.
- 7.26 Should there be insufficient space to facilitate replacement planting within the redline boundary there is space elsewhere within the wider site ownership that could be utilised for tree planting.

### **Principles of Tree Protection**

- 7.27 All construction activities have the potential to cause harm to the retained trees on site. It is therefore necessary that measures are employed across the site to limit the potential for such harm and prevent any long-term negative impacts on the trees.
- 7.28 A Preliminary Arboricultural Method Statement is included at Appendix 1 of this report which provides generic details on what protective measures are required, how they will be implemented and what supervision is required to ensure that the measures remain in place and fit for purpose.
- 7.29 All retained trees will be within a Construction Exclusion Zone (CEZ). This is the area identified by the Project Arboriculturist as the area to be protected during development from Site clearance and construction work through the use of barriers and/or ground protection to ensure the successful long-term retention of trees. The CEZ can be identified by orange diagonal hatching on the attached TPP. The Tree Protective Fencing (TPF) can be identified by the thick black-dashed line on the attached TPP.
- 7.30 The following principles for the protection of retained trees will be adopted across the site for the duration of the project:
- All retained trees will be protected by fencing that will form the CEZ.
  - Where fencing cannot provide the necessary protection measures, alternative systems will be installed that will ensure retained trees are protected. This may include the use of either temporary or permanent ground protection.
  - There will be no storage of materials, or access for construction workers or machinery within any CEZ.
  - There will be no excavation within a CEZ. All utilities and underground services will be located outside the CEZ or tap into existing service routes.
  - Any storage or mixing station located outside of a CEZ will be located in a place that minimises the risk of contaminated runoff entering the CEZ and damaging the rooting environment. This may be achieved by using a non-permeable membrane on the ground, surrounded by sandbags to contain any spillage.
  - There will be no fires within a CEZ.
  - There will be no use of herbicides within a CEZ.



**8. STATUTORY CONSIDERATIONS FOR TREE WORKS**

8.1 The Ministry of Housing, Communities and Local Government has provided Supplementary Planning Guidance (SPG) for the management of trees that are either subject to a TPO or are in a conservation area. This includes specific advice on how to address the issue of trees conservation areas within a planning application.

8.2 The guidance explains that<sup>5</sup>:

*An authority may treat a planning application for development in a conservation area that includes specified tree work as a section 211 notice if the applicant has clearly stated that it should be considered as such. However, if work is proposed to trees other than those immediately affected by a proposed development then a separate section 211 notice should be submitted. Where an authority has granted planning permission for development in a conservation area, only tree works necessary to implement the development may be carried out. The authority may use conditions or informatives attached to the permission to clarify this requirement. (Paragraph: 134 Reference ID: 36-134-20140306 Revision date: 06 03 2014)*

8.3 The Site is not located within a conservation area and no trees are subject to a TPO. As such, the only statutory consent that might be required for tree removal (in the absence of planning consent) would be the need to obtain a felling licence from the Forestry Commission (FC).

8.4 The details of the tree removals are clear and unambiguous and therefore meets the threshold for an exception to the need to apply for a felling licence from the FC, should planning consent be granted.

8.5 However, should it be necessary to remove additional trees, a further assessment will have to be undertaken and consent either obtained from the LPA or the FC, whichever is appropriate.

**9. PLANNING POLICY ASSESSMENT**

9.1 A review of impact of tree loss in relation to national and local planning policy is provided in Table 9.

Table 9: Review of planning policy

Policy	Summary	Review
	National Planning Policy	
<b>Para 131</b>	Street tree planting and choosing the right tree for the right place	This scheme does not include the provision of new streets as it is associated with a new residential property. However, there is sufficient space within the wider site to accommodate replacement planting as compensation for the loss of trees.

<sup>5</sup> <https://www.gov.uk/guidance/tree-preservation-orders-and-trees-in-conservation-areas>

Policy		Summary	Review
<b>Para 174</b>		Ecosystems services, recognising the importance contribution trees make to the natural and local environment	No veteran or ancient trees were recorded, nor any high-quality specimens or those subject to a TPO. Tree removals have primarily been limited to those trees of low or poor quality, with only one moderate quality specimen requiring removal. All other trees and groups of trees will be retained and incorporated as a result of this design scheme.
<b>Para 180</b>		Protection of ancient/veteran trees and ancient woodland	No ancient or veteran trees, nor ancient woodland, were identified as part of the survey.
<b>Local Planning Policy</b>			
<b>EN7</b>		<p>Trees, woodlands or hedgerows that are of landscape, amenity, ecological or historical value (including veteran trees).</p> <p>Where trees are proposed for removal compensatory planting will be required.</p>	No ancient or veteran specimens were identified and trees removals have been targeted at those of low or poor arboricultural quality. The scheme will require the loss of one moderate quality tree, but none of those proposed for removal are considered to be of significant value (landscape, amenity, ecological or historical). No replacement planting has been proposed, but there is sufficient space within the wider site to accommodate future tree planting.

## 10. CONCLUSION

- 10.1 The proposed development is for the demolition of existing pottery studio and erection of new dwelling and associated new vehicular access and courtyard.
- 10.2 National and Local Planning Policy has formed a critical part of the design process and a tree survey has been undertaken to provide guidance to the design team as to the constraints presented by trees.
- 10.3 The design scheme will result in the removal or partial removal of six trees, groups of trees or hedgerows. One of these trees would be recommended for removal irrespective of this design proposal due to such poor physiological and structural condition. The majority of the remaining trees are of low arboricultural quality, with only one moderate quality tree requiring removal.

- 10.4 While no replacement planting has been proposed as part of this scheme, a new green roof is included in the site design and there is sufficient space within the wider site to accommodate compensatory planting.
- 10.5 All other trees recorded within the site will be retained and incorporated into the design proposal.
- 10.6 A total of seven trees or groups of trees will require pruning to facilitate this design scheme. This predominantly consists of lateral crown reductions or crown lifts to facilitate sufficient working space.
- 10.7 A total of three trees have the potential to be impacted through this design scheme. This is through the provision of new structures or new hard landscaping. A series of protection measures have been proposed to ensure that these trees are not subject to significant harm as a result of this development proposal and that they remain sustainable in the long-term.
- 10.8 This application is considered compliant with national planning and local policy, insofar as it relates to trees.

## 11. ABOUT THE AUTHOR

- 11.1 I am a director of Tree Frontiers Ltd and a chartered arboricultural consultant, with a masters degree in urban forestry and arboriculture from Myerscough College, accredited by the University of Lancaster.
- 11.2 I have 10 years' experience working in the sector and am a chartered member of the Institute of Chartered Foresters. I am also a professional member of the Arboricultural Association and abide by the code of ethics and professional standards of these institutions.

## 12. REFERENCES

12.1 This report has relied upon the following external reference sources:

- British Standards Institution (2012) BS5837: *Trees in relation to design, demolition and construction – recommendations*. London: BSI
- Gov.uk (2021) *National Planning Policy Framework*. [Available online: <https://www.gov.uk/government/publications/national-planning-policy-framework-2>]
- Cotswold District Council (2018) *Cotswold District Local Plan (2011-2031)* [Available online: <https://www.cotswold.gov.uk/planning-and-building/planning-policy/local-plan-2011-to-2031/> (Accessed 30.11.2023)]
- Cotswold District Council (2023) *Conservation Area and Tree Preservation Order Search* [Available online: <https://experience.arcgis.com/experience/45420cd71bc14bc4bad4b1bbd1a407e4/page/Page-1/> (Accessed 30.11.2023)]
- British Geological Society (2023) *Geology of Britain Viewer*. [Available online: <https://www.bgs.ac.uk/map-viewers/bgs-geology-viewer/> (Accessed: 30.11.2023)]
- Cranfield Soil and Agrifood Institute (2023) *Soilscapes* [Available online: <http://www.landis.org.uk/soilscapes/#> (Accessed 30.11.2023)]
- DEFRA (2023) *Multi Agency Geographic Information for the Countryside( MAGIC)* [Available online: <https://magic.defra.gov.uk/> (Accessed 30.11.2023)]
- Mattheck, C. & Breloer, H. (1994) *The Body Language of Trees, A Handbook for Failure Analysis Research for Amenity Trees No.4*. HMSO

### **13. APPENDIX 1 – PRELIMINARY ARBORICULTURAL METHOD STATEMENT**

#### **Overview**

- 13.1 This Preliminary Arboricultural Method Statement (AMS) provides best practice measures to be adopted protect retained trees during the development process. It has been prepared to inform the planning and the construction/development process.
- 13.2 The document also provides details of general measures required to protect retained trees from potentially harmful activities such as the construction of hard surfaces within the RPA.

#### **Supervision**

- 13.3 Prior to the commencement of any tree works, installation of protection measures or the mobilisation of construction machinery and materials, a qualified and independent arboricultural consultant shall be appointed as the Project Arboriculturist to provide advice to the construction team and to supervise any works that have the potential to cause harm to retained trees.
- 13.4 The retained Project Arboriculturist shall be the principle point of contract for the main works contractor on all matters relating to trees and shall liaise as required with the LPA tree officer.

#### **Tree Removals**

- 13.5 Trees for removal have been noted on the AIP with a red hatched circle and dashed outline.
- 13.6 Great care should be taken during the tree removal process to ensure that retained trees are not adversely impacted. The following methodology should be adhered to at all times:
- Any machinery used during the tree removal process be sited outside the RPA of retained trees.
  - The felling of trees will be undertaken to avoid damaging retained trees.
  - Where the removal of stumps of felled trees is required, great care will be taken to ensure any retained trees in close proximity remain free from harm.
- 13.7 All works will be conducted by a suitably qualified arborist working in accordance with BS3998:2010 *Tree Work – Recommendations*.

#### **Remedial Tree Works**

- 13.8 The trees requiring remedial works to facilitate development will be carried out by a suitably qualified arborist working in accordance with BS3998:2010 *Tree Work – Recommendations*.

#### **Protection of Retained Trees**

- 13.9 Where practical all retained trees will be protected through the construction phase using barriers to limit the potential for harm from machinery, materials or personnel.
- 13.10 The primary form of protection is the use of fencing around the trees to prevent access within a protected buffer zone. This buffer zone is a Construction Exclusion Zone (CEZ) and there will be no access within it during the construction phase.



### Tree Protection Fencing

- 13.11 Protective fencing will be erected around retained trees prior to the commencement of any site works including mobilisation of machinery and materials.
- 13.12 The location of the fencing has been marked on the TPP prepared for this AMS. This is shown as a black dashed line, and the CEZ has been highlighted as orange hatching behind the fencing.
- 13.13 The appropriate form of fencing for this project will be wire mesh panels that will be supported on the ground by a rubberised foot that will in turn be pinned to the ground using metal stakes driven a minimum of 500mm into the ground. An example of the fencing panel construction is provided in Plate 2 below.

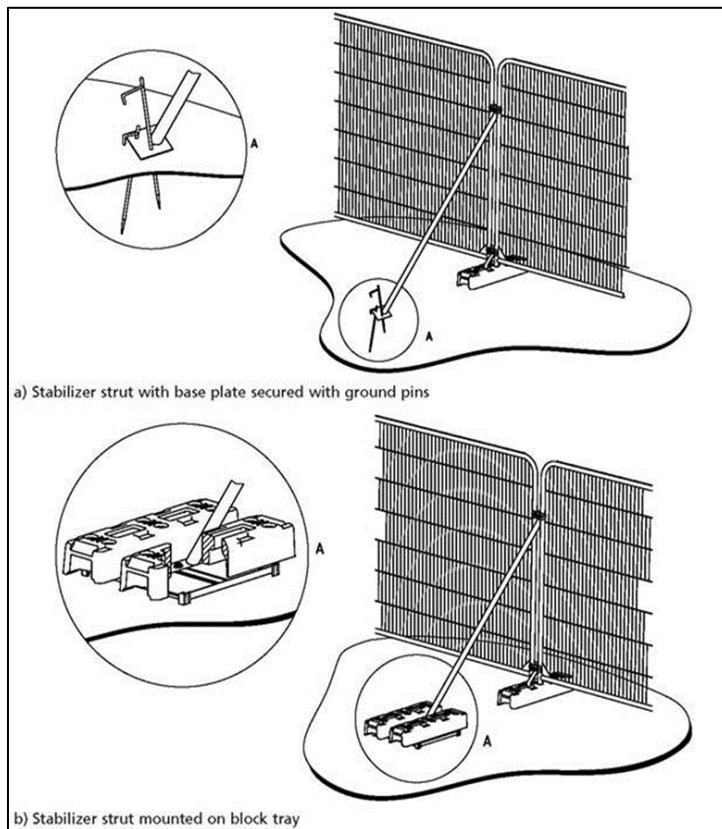


Plate 2 Tree protection fencing specification (extract from BS 5837: 2012)

- 13.14 Weather-proof notices shall be attached to any protective fencing located adjacent to retained trees displaying the words “Construction Exclusion Zone” and listing restrictions which apply. All personnel must be made aware of these restrictions. An example of a suitable sign for the fencing is provided in Plate 3.



Plate 3: Example of Tree Protective Fencing sign

### Construction Exclusion Zone (CEZ)

13.15 The CEZ is the area identified by the Project Arboriculturist as the area to be protected during development from Site clearance and construction work through the use of barriers and/or ground protection to ensure the successful long-term retention of a tree. Fencing or ground protection shall not be taken down or relocated at any time without prior agreement and/or Site supervision as recommended by the Project Arboriculturist.

13.16 All areas excluded by protective tree fencing shall be treated as CEZs and the following restrictions shall apply:

- No construction activity can occur within these areas.
- No works on trees unless agreed by the Project Arboriculturist.
- No alterations of ground levels or conditions.
- No chemicals or cement washings.
- No excavation.
- No temporary structures.\*
- No storage of soil, rubble or other materials.
- No vehicles or machinery to be used or parked without appropriate ground protection measures as per BS5837 recommendations. This will require the use of a proprietary system of reinforced concrete slabs/steel road plates on a compressible layer, or side butting scaffold boards/ 18mm plywood sheets on a compressible layer. The type of ground protection used shall be appropriate for the potential loading applied.
- No fixtures (*lighting, signs etc.*) to be attached to trees.
- No fires within 10 metres of the canopies of any tree or hedgerow.

\*Site huts, provided they are of the “Jack Leg” type, can be sited to act as ground protection for the duration of the construction.

### Temporary Ground Protection

13.17 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. The ground protection might comprise one of the following:

- **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;
- **For pedestrian-operated plant up to a gross weight of 2 t** 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;
- **For wheeled or tracked construction traffic exceeding 2t gross weight**, an alternative system (*e.g. proprietary systems or pre-cast reinforced concrete slabs*) to an engineering specification designed in conjunction with arboricultural advice, to accommodate the potential loading to which it will be subjected.

13.18 Where temporary ground protection is required, this has been marked on the TPP with a yellow hatching.

### New Permanent Surfacing Within RPAs

13.19 The installation of the cellular confinement system shall be undertaken following manufacturer’s guidance and in accordance with Arboricultural Association Guidance Note 12 *The use of cellular confinement systems near trees: A guide to good practice*.

13.20 Any new surfacing within the RPA of a retained tree shall occur above ground level without soil stripping.

13.21 New surfaces shall be constructed on a three-dimensional cellular confinement system to prevent localised compaction of the rooting medium post development. Porous geotextile membranes shall be used both above and below the cellular confinement system to prevent mixing of materials with the binding layer or the soil.

13.22 The new surface needs to be permeable to air and water (resin bound gravel or similar is recommended). This is to allow roots to respire without there being a build-up of carbon dioxide, and to ensure the roots continue to receive the moisture and oxygen they require to function.

13.23 Traditional kerbing requires excavation to install and will therefore not be suitable within the RPA of retained trees. As an alternative, haunched kerbing, treated timber edging, aluminium L-shaped edging, galvanised metal edging or no fixed edging shall be used.

13.24 Areas requiring permanent ground protection have been marked on the TPP with purple hatching.

### **General Canopy Protection**

13.25 Since the canopies of retained trees may be in close proximity to areas of plant operation, the following restrictions will apply:

- All plant will be sited outside the defined RPAs of retained trees / groups, and the appointed contractor will ensure all relevant personnel shall be made aware of the location of branches and the need to avoid causing damage to them.
- Prior to the implementation of lifting operations, a representative from the equipment supply company shall visit the Site and ensure all operations can be completed without causing damage to retained trees. A lifting plan will be prepared and submitted for approval prior to all lifting operations. The lifting plan will make provision for the potential for damage of retained trees.
- All lifting operations will be completed under the close direction of a qualified banksman, who will be briefed by the appointed contractor as to the need to avoid damage the stems and branches of retained trees.

13.26 Should additional tree removal or pruning be required the LPA Tree Officer shall be contacted and the scope of works agreed in writing.

### **Hazardous Materials**

13.27 Any mixing of cement-based materials is to take place outside the RPAs of all trees. Provision shall be made to ensure that the mixing area is contained so that no water runoff enters the RPA of any trees. All mixers and barrows shall be cleaned within this dedicated mixing area.

13.28 All other chemicals hazardous to tree health, including petrol and diesel, are to be stored in suitable containers as specified by the Control of Substances Hazardous to Health (COSHH) Regulations (HMSO, 2002: *The Control of Substances Hazardous to Health Regulations 2002*), and kept away from the RPAs.

### **Demolition**

13.29 Any demolition works within the RPA of retained trees will be undertaken in accordance with the following methodology:

- Demolition works will be undertaken using a 'top down, pull back' technique. This will minimise the potential of physical harm to retained trees.
- Care must be taken to avoid physical contact with the canopies of offsite trees during the demolition works. A banksman will be used where such conflicts could occur.
- If localised pruning is required the LPA Tree Officer shall be contacted and the scope of works agreed in writing.
- All machinery used to undertake demolition works will be sited outside the RPAs of existing trees or working from on top of existing hard standing.
- Debris may be removed from the RPAs of retained trees by using machinery with a long reach or through pedestrian access. Care must be taken to avoid damage to the

existing ground surface to ensure the rooting environment remains sustainable post demolition.

- The removal of existing hardstanding or foundations within the RPAs of retained trees will be undertaken using hand tools only. Appropriate tools for manually removing debris may include a pneumatic breaker, crow bar, sledgehammer, pick, mattock, shovel, trowel and fork.
- Severance of roots over 25mm diameter should be avoided unless advised by the retained Project Arboriculturist. Secateurs and a handsaw must be available to deal with any roots that are exposed. Where roots will remain exposed for any period of time the roots must be wrapped in hessian sacking for protection.

#### **Contractor compound, site huts and welfare units.**

13.30 The contractor's compound, including all site huts, storage and welfare units, will be located outside the CEZ of retained trees.

#### **Service installation overhead and underground**

13.31 The following hierarchy shall be applied to the design and installation of underground services:

- 1) All service trenches shall be located outside the RPA of retained trees.
- 2) Where it is not feasible to avoid the RPA, trenchless technology shall be utilised to minimise the impact on the rooting environment.
- 3) Where trenchless technology cannot be applied, excavation shall be undertaken using the less harmful methodology including hand digging or use of an airspade to dislodge soil without severing roots. All excavation must be carried out carefully using spades, forks and trowels, taking care not to damage the bark and wood of any roots. Specialist tools for removing soil around roots using compressed air may be an appropriate alternative to hand digging, if available. All soil removal must be undertaken with care to minimise the disturbance of roots beyond the immediate area of excavation. Where possible, flexible clumps of small roots, including fibrous roots, should be retained if they can be displaced temporarily or permanently beyond the excavation without damage.
- 4) Where it is not possible to hand dig a trench, an excavator may be used, located if possible outside the RPA, or sat on a load spreading surface that will minimise the potential for further harm to the rooting environment. Any operation for excavation shall be supervised by the retained Project Arboriculturist.

#### **Project Supervision and Reporting**

13.32 All tree protection measures will remain in place throughout the development phase.

13.33 The retained Project Arboriculturist will complete site inspections through this period to ensure that protective fencing and other measures remain fit for purpose and that the sanctity of the CEZ is being maintained.

13.34 A post-inspection report will be prepared after every site visit detailing observations and any recommendations for specific measures that may be required in the forthcoming period. A copy of this report will be sent to the LPA tree officer and circulated to the project team including the site manager for the main works contractor.

**Post Development**

13.35 No fencing or other protective measures will be moved, dismantled or taken off site until the Project Arboriculturist has confirmed that all machinery has been removed from the site and any construction activity that could cause harm to retained trees has been completed.



<b>Client:</b>	Henge Project Management Ltd			<b>Reference:</b>	270-FOX-INF-SCH-FD-01
<b>Site:</b>	Fox Furlong, Oddington			<b>Surveyor(s):</b>	Steve Westmore
				<b>Date of survey:</b>	15.11.23
<b>Key to Notations</b>					
		<b>Age Class</b>	<b>Definition</b>	<b>Category Grading</b>	<b>Sub category</b>
<b>Stem Dia:</b>	Stem diameter (mm) at 1.5m above ground level	<b>Y</b>	Young	Trees that have not yet reached 1/3 of their expected mature height	
<b>C.C.</b>	Height of crown clearance above ground level	<b>EM</b>	Early Mature	The stage in the life cycle of a tree between youth and maturity	
<b>L.B.</b>	Lowest branch height in meters	<b>M</b>	Mature	Close to full height and crown size	
<b>D.L.B.</b>	Direction of Lowest Branch	<b>OM</b>	Over Mature	Close to full height and crown size while main-stem diameter increases more slowly	
<b>E.R.C</b>	Estimated Remaining Contribution (in years)	<b>V</b>	<b>Veteran</b>	A tree that has survived the rigours of life and shows signs of ancientness	
				<b>Category</b>	<b>ERC</b>
				<b>A</b>	High Quality & Value
				<b>B</b>	Moderate Quality & Value
				<b>C</b>	Low Quality & Value
				<b>U</b>	Unsuitable for retention
				40+	1 - Mainly Arboricultural
				20+	2 - Mainly Landscape
				10+	3 - Mainly Cultural
				<10	# - Indicative position on plans/estimated dimensions
<b>Physiological condition (PC)</b>	<b>Good</b> - No significant health problems	<b>Fair</b> - Symptoms of health that can be remediated		<b>Poor</b> - Significant ill health	
<b>Structural condition (SC)</b>	<b>Good</b> - No significant defects	<b>Fair</b> - Significant defects that can be remediated		<b>Poor</b> - Significant defects with no remedy	
<b>NOTES:</b>					
If a tree is designated as veteran, the RPA calculation is determined as 15x the stem diameter or 5m beyond the canopy (whichever is the larger) for greater protection. The RPA cell has been colour coded with light orange.					
Trees subject to a Tree Preservation Order will have the tree number colour coded in light blue.					

Tree No.	Species	H (m)	Stem Dia.	No of Stems	Canopy (m)	CC (m)	LB (m)	DLB (m)	Age	Condition	Observations	Recommendations	ERC	Cat.	Sub Cat	RPA (m2)	RPA Radial distance (m)	Ground area covered by canopy (m2)
T001	Plum (Prunus domestica)	10	370	2	N - 4.5 E - 5.5 S - 4 W - 2.5	2	1	-	Mature	PC - Fair SC - Fair	Tree located by access gates. Ivy clad stem and recent cable installation for gates at base west. Northern lateral limb recently removed. Canopy overhangs access drive and slightly asymmetric canopy.	-	10+ Years	C	1	64	4.50	53.4
H002	Leyland Cypress (Cupressocyparis leylandii X)	3	90	1	N - 1.5 E - 1.5 S - 1.5 W - 1.5	-	-	-	Early Mature	PC - Fair SC - Fair	Small linear section of hedgerow along site boundary. Managed through trimming and topped at 3m. Provides low level screen.	If retained, continue to manage through trimming.	10+ Years	C	2	5	1.20	7.1
T003	Common Ash (Fraxinus excelsior)	15	600	1	N - 6 E - 5 S - 4 W - 6	4	5	N	Mature	PC - Poor SC - Fair	Tree located in hedgerow - stem measurement estimated. Dense ivy clad stem and crown. Limb epicormic growth and declining canopy with deadwood throughout. Ash dieback symptoms 25-50%	Fell or monolith at 8m	<10 years	U	U	163	7.20	86.4
G004#	Prunus Wild Cherry x2 (Prunus sp. Prunus avium x2)	5	90	1	N - 2 E - 2 S - 2 W - 2	-	-	-	Young	PC - Fair SC - Fair	Not plotted on topographical survey- position on plan remains indicative. Small group of trees with natural and building debris at base. Stem damage to all trees.	-	10+ Years	C	2	5	1.20	12.6
H005	Leyland Cypress (Cupressocyparis leylandii X)	3	90	1	N - 1.5 E - 1.5 S - 1.5 W - 1.5	-	-	-	Early Mature	PC - Fair SC - Fair	Extension of H2. On southside of new access gate. Managed through trimming and topped at 3m. Provides low level screen.	If retained, continue to manage through trimming.	10+ Years	C	2	5	1.20	7.1
T006	Common Ash (Fraxinus excelsior)	13	480	1	N - 4 E - 5 S - 4 W - 5.5	3	3	S	Mature	PC - Fair SC - Fair	Tree located in hedgerow. Canopy overhangs new access point and offsite road. Minor deadwood over road. Asymmetric canopy and Ash dieback symptoms 0-25%	If retained, monitor for further onset of Ash dieback and remove deadwood over road.	10+ Years	C	1	102	5.70	66.0
T007	Horse Chestnut (Aesculus hippocastanum)	12	540	1	N - 4.5 E - 6.5 S - 5 W - 4.5	1	4	-	Early Mature	PC - Fair SC - Good	Tree located in corner of site. Leaf miner damage, but otherwise reasonable example of species.	-	20+ Years	B	1	137	6.60	82.1
G008	Lawson Cypress Western Red Cedar Leyland Cypress (Chamaecyparis lawsoniana Thuja plicata Cupressocyparis leylandii X)	9	150	1	N - 2 E - 2 S - 2 W - 2	-	-	N	Semi Mature	PC - Good SC - Fair	Linear group along boundary of site. Crown spread and species varies along length. Larger trees have previously been topped at 6m with good regrowth. Provides mid-level screen along southern boundary.	Long term consider management options (i.e. thinning, topping etc.)	10+ Years	C	2	10	1.80	12.6

		Age Class		Definition		Key to Notations		Category Grading		Sub category	
Stem Dia:	Stem diameter (mm) at 1.5m above ground level	Y	Young	Trees that have not yet reached 1/3 of their expected mature height				Category		ERC	
C.C.	Height of crown clearance above ground level	EM	Early Mature	The stage in the life cycle of a tree between youth and maturity				A	High Quality & Value	40+	1 - Mainly Arboricultural
L.B.	Lowest branch height in meters	M	Mature	Close to full height and crown size				B	Moderate Quality & Value	20+	2 - Mainly Landscape
D.L.B.	Direction of Lowest Branch	OM	Over Mature	Close to full height and crown size while main-stem diameter increases more slowly				C	Low Quality & Value	10+	3 - Mainly Cultural
E.R.C	Estimated Remaining Contribution (in years)	V	Veteran	A tree that has survived the rigours of life and shows signs of ancientness				U	Unsuitable for retention	<10	# - Indicative position on plans/estimated dimensions

Physiological condition (PC)	Good - No significant health problems	Fair - Symptoms of health that can be remediated	Poor - Significant ill health	NOTES: If a tree is designated as veteran, the RPA calculation is determined as 15x the stem diameter or 5m beyond the canopy (whichever is the larger) for greater protection. The RPA cell has been colour coded with light orange. Trees subject to a Tree Preservation Order will have the tree number colour coded in light blue.
Structural condition (SC)	Good - No significant defects	Fair - Significant defects that can be remediated	Poor - Significant defects with no remedy	










Tree No.	Species	H (m)	Stem Dia.	No of Stems	Canopy (m)	CC (m)	LB (m)	DLB (m)	Age	Condition	Observations	Recommendations	ERC	Cat.	Sub Cat	RPA (m2)	RPA Radial distance (m)	Ground area covered by canopy (m2)
T009	Hornbeam (Carpinus betulus)	10	150	1	N - 3.5 E - 3.5 S - 1 W - 2.5	-	2	N	Semi Mature	PC - Fair SC - Fair	Building materials stored at base north. Suppressed by adjacent group to south.	If retained, remove building materials from base.	10+ Years	C	1	10	1.80	21.2
T010	Hornbeam (Carpinus betulus)	7	130	1	N - 2 E - 2.5 S - 1 W - 2	1	2	N	Semi Mature	PC - Fair SC - Poor	Building materials stored at base north. Stem damage north at 1m. Recen level change at base north. Suppressed by adjacent group to south.	If retained, remove building materials from base.	10+ Years	C	1	7	1.50	10.6
T011	Black Walnut (Juglans nigra)	11	430	2	N - 7 E - 6.5 S - 3.5 W - 5	3	1	W	Mature	PC - Good SC - Fair	Tree located adjacent boundary group. Large scaffold limb at 0.5m west. Previously crown lifted east. Small timber retaining wall north which has likely restricted root growth. Canopy resting on roof ridge of existing building north.	-	20+ Years	B	1	82	5.10	94.8
T012	Pedunculate Oak (Quercus robur)	15	350	1	N - 3 E - 5 S - 5 W - 4	3	3	-	Early Mature	PC - Good SC - Fair	Tree forms part of wider woodland copse, but located on eastside of chainlink fence so recorded individually. Slightly asymmetric canopy due to neighbouring trees. Minor deadwood throughout.	-	20+ Years	B	1	55	4.20	56.5
T013	Pedunculate Oak (Quercus robur)	15	310	1	N - 5 E - 5.5 S - 3.5 W - 3.5	2	3	S	Early Mature	PC - Good SC - Fair	Tree forms part of wider woodland copse, but located on eastside of chainlink fence so recorded individually. Slightly asymmetric canopy due to neighbouring trees. Self set elder growing at base.	-	20+ Years	B	1	41	3.60	60.1
T014	Pedunculate Oak (Quercus robur)	13	350	1	N - 4.5 E - 5.5 S - 3 W - 4.5	1	2	S	Early Mature	PC - Good SC - Fair	Tree forms part of wider woodland copse, but located on eastside of chainlink fence so recorded individually. Slightly asymmetric canopy due to neighbouring trees. Bird box on stem south at 2m.	-	20+ Years	B	1	55	4.20	58.9
T015#	Apple (Malus sp.)	4	130	2	N - 3 E - 3 S - 2 W - 2	-	-	E	Semi Mature	PC - Fair SC - Fair	Not plotted on topographical survey - position on plan remains indicative. Stem bifurcates at base and canopy overhangs existing patio path.	-	10+ Years	C	1	7	1.50	19.6
W016	Hazel Walnut Hornbeam Pedunculate Oak Elder Poplar (Corylus avellana Juglans sp. Carpinus betulus Quercus robur Sambucus nigra Populus sp.)	20	300	1	N - 4 E - 4 S - 4 W - 4	-	-	-	Early Mature	PC - Good SC - Fair	Small clustered woodland copse. All measurements averaged and estimated. Height and crown spread varies but provides cohesive feature in corner of site.	-	20+ Years	B	2	41	3.60	50.3

		Age Class		Definition		Key to Notations		Category Grading		Sub category	
Stem Dia:	Stem diameter (mm) at 1.5m above ground level	Y	Young	Trees that have not yet reached 1/3 of their expected mature height				Category		ERC	1 - Mainly Arboricultural
C.C.	Height of crown clearance above ground level	EM	Early Mature	The stage in the life cycle of a tree between youth and maturity				A	High Quality & Value	40+	2 - Mainly Landscape
L.B.	Lowest branch height in meters	M	Mature	Close to full height and crown size				B	Moderate Quality & Value	20+	3 - Mainly Cultural
D.L.B.	Direction of Lowest Branch	OM	Over Mature	Close to full height and crown size while main-stem diameter increases more slowly				C	Low Quality & Value	10+	
E.R.C.	Estimated Remaining Contribution (in years)	V	Veteran	A tree that has survived the rigours of life and shows signs of ancientness				U	Unsuitable for retention	<10	# - Indicative position on plans/estimated dimensions
Physiological condition (PC)		Good - No significant health problems		Fair - Symptoms of health that can be remediated		Poor - Significant ill health		NOTES:		If a tree is designated as veteran, the RPA calculation is determined as 15x the stem diameter or 5m beyond the canopy (whichever is the larger) for greater protection. The RPA cell has been colour coded with light orange.	
Structural condition (SC)		Good - No significant defects		Fair - Significant defects that can be remediated		Poor - Significant defects with no remedy				Trees subject to a Tree Preservation Order will have the tree number colour coded in light blue.	

Tree No.	Species	H (m)	Stem Dia.	No of Stems	Canopy (m)	CC (m)	LB (m)	DLB (m)	Age	Condition	Observations	Recommendations	ERC	Cat.	Sub Cat	RPA (m2)	RPA Radial distance (m)	Ground area covered by canopy (m2)
T017	Hornbeam (Carpinus betulus)	7	160	1	N - 2 E - 2.5 S - 2 W - 3.5	1	2	S	Semi Mature	PC - Fair SC - Fair	Building materials stored at base south.	If retained, remove building materials from base.	10+ Years	C	1	10	1.80	18.8
G018#	Plum x2 (Prunus domestica x2)	5	130	1	N - 2.5 E - 2.5 S - 2.5 W - 2.5	1	1	-	Early Mature	PC - Fair SC - Fair	Not plotted on topographical survey- position on plan remains indicative. Small group of 2 trees with newly planted shrubs/trees to north.	-	10+ Years	C	2	7	1.50	19.6
H019	Hornbeam (Carpinus betulus)	2	80	1	N - 0.5 E - 0.5 S - 0.5 W - 0.5	-	-	-	Young	PC - Fair SC - Fair	Small linear section of hedgerow that has been maintained through trimming.	-	10+ Years	C	2	3	0.90	0.8



**Legend:**

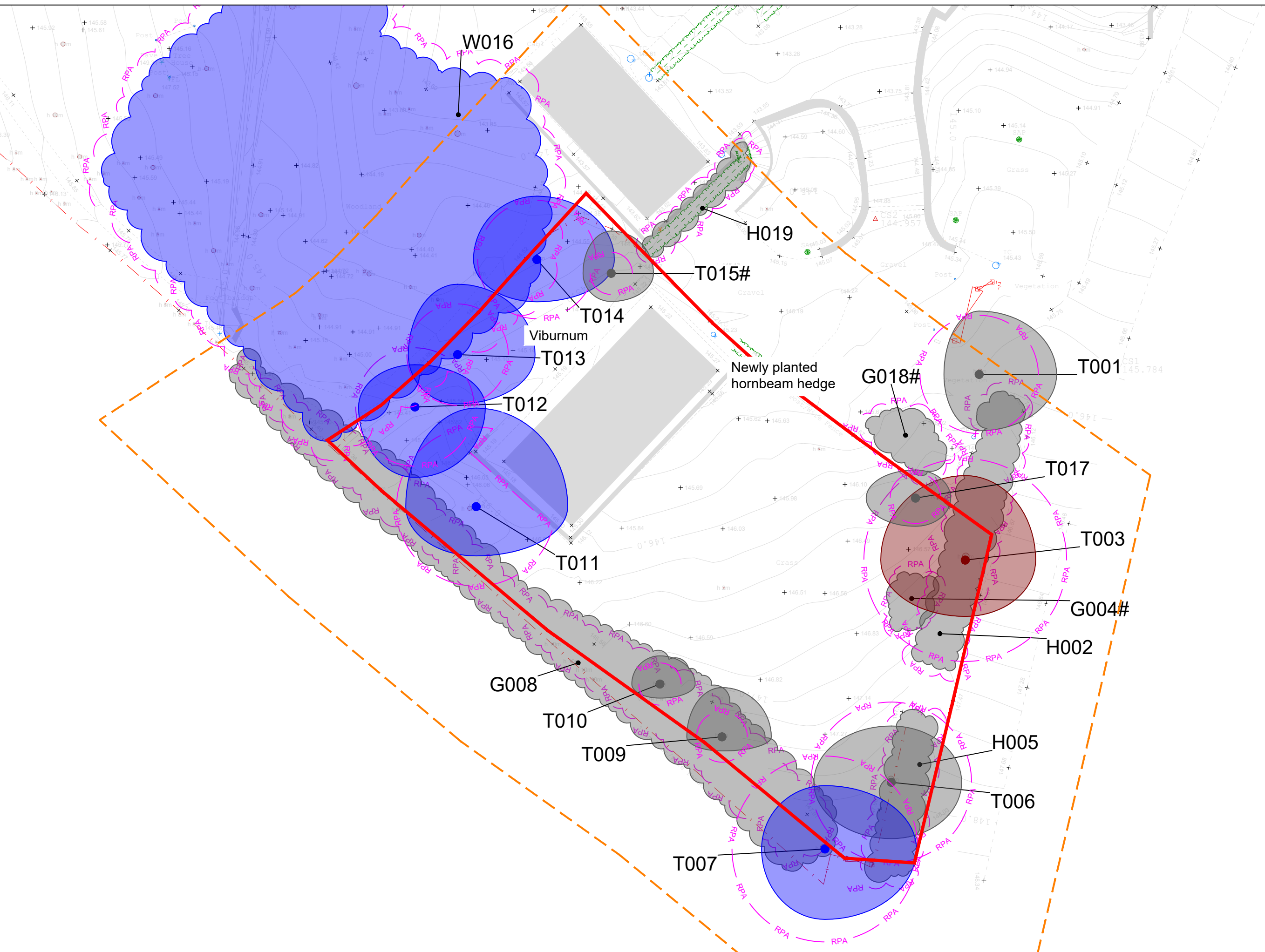
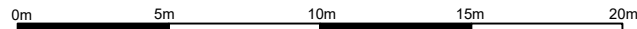
-  Indicative Site Boundary
-  Survey Extents
-  Category A Trees (Stem and Canopy Spread)
-  Category B Trees (Stem and Canopy Spread)
-  Category C Trees (Stem and Canopy Spread)
-  Category U Trees (Stem and Canopy Spread)
-  Root Protection Area
-  Existing Site
-  Indicative Position/Estimated Dimensions

**Notes:**  
- The extents of W16 extend beyond that depicted on this plan.

CLIENT:	Henge Project Management Ltd	
PROJECT/SITE:	Fox Furlong, Oddington	
TITLE:	Tree Constraints Plan	
MAP REF:	270-FOX-DRW-TCP-FD	
REVISION:	01	
LAYOUT:	Overview	
STATUS:	For Design	
DATE:	16.11.2023	PRODUCED BY: SW
SCALE:	1:250@A3	REVIEWED BY: -

The original of this drawing was produced in colour - a monochrome copy should not be relied upon.












**Scale Bar (1:250)**







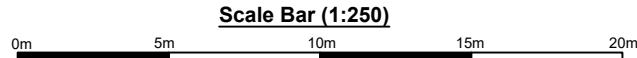
**Legend:**

-  Indicative Site Boundary
-  Category A Trees (Stem and Canopy Spread)
-  Category B Trees (Stem and Canopy Spread)
-  Category C Trees (Stem and Canopy Spread)
-  Category U Trees (Stem and Canopy Spread)
-  Root Protection Area
-  Existing Site
-  Indicative Position/Estimated Dimensions
-  Trees to be Removed
-  RPA Encroachment
-  Proposed Layout

**Notes:**  
- The extents of W16 extend beyond that depicted on this plan.












CLIENT:	Henge Project Management Ltd	
PROJECT/SITE:	The Pottery, Fox Furlong, Oddington	
TITLE:	Arboricultural Implications Plan	
MAP REF:	270-FOX-DRW-AIP-FP	
REVISION:	01	
LAYOUT:	Overview	
STATUS:	For Planning	
DATE:	06.12.2023	PRODUCED BY: SW
SCALE:	1:250@A3	REVIEWED BY: -

The original of this drawing was produced in colour - a monochrome copy should not be relied upon.



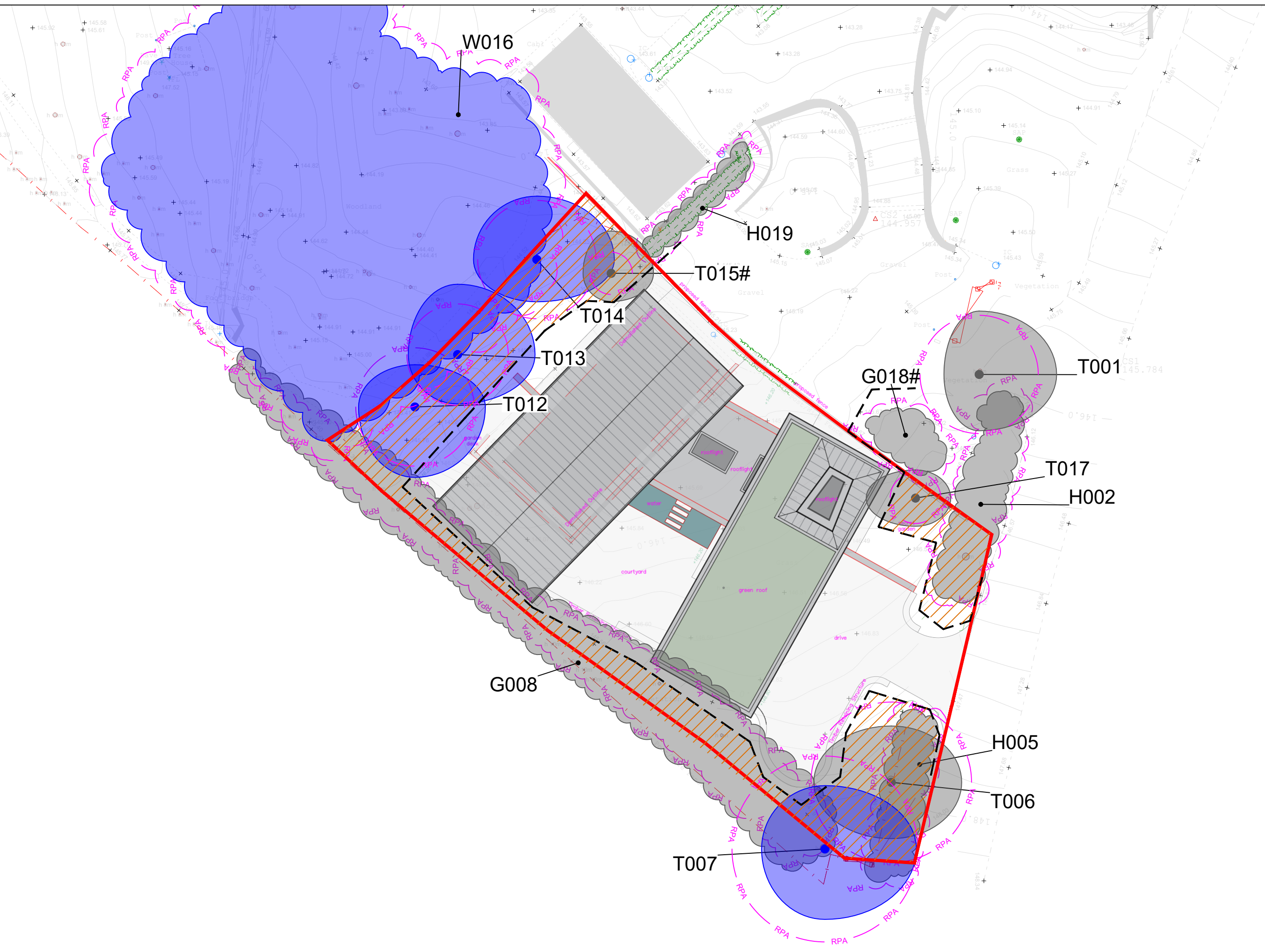


**Legend:**

-  Indicative Site Boundary
-  Category A Trees (Stem and Canopy Spread)
-  Category B Trees (Stem and Canopy Spread)
-  Category C Trees (Stem and Canopy Spread)
-  Category U Trees (Stem and Canopy Spread)
-  Root Protection Area
-  Existing Site
-  Indicative Position/Estimated Dimensions
-  Proposed Layout
-  Construction Exclusion Zone (area required to protect retained trees roots and canopy)
-  Tree Protection Fencing

**Notes:**  
- The extents of W16 extend beyond that depicted on this plan.

CLIENT:	Henge Project Management Ltd	
PROJECT/SITE:	The Pottery, Fox Furlong, Oddington	
TITLE:	Arboricultural Implications Plan	
MAP REF:	270-FOX-DRW-AIP-FP	
REVISION:	01	
LAYOUT:	Overview	
STATUS:	For Planning	
DATE:	06.12.2023	PRODUCED BY: SW
SCALE:	1:250@A3	REVIEWED BY: -



The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

