

Land at Hanwell Fields,
Banbury

Arboricultural Impact Assessment

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Project:	Land at Hanwell Fields, Banbury
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Executive Summary

- i) **Introduction.** Aspect Arboriculture are commissioned by Manor Oak Homes to prepare an Arboricultural Survey and Impact Assessment relating to proposed development of land at Hanwell Fields, Banbury.
- ii) **Proposals.** The development proposals comprise *'Outline planning application for up to 78 dwellings and associated open space with all matters reserved other than access'*.
- iii) **Surveys.** The site was surveyed by Aspect in July 2021 following the guidance contained within BS5837:2012. Copies of the tree survey information are available within appendices A and B.
- iv) **Statutory Designations.** Background checks have confirmed that the site does not occur within a Conservation Area and that there are no trees present on site which are afforded protection by a Tree Preservation Order. A single Ash, under the applicant's control, has been afforded protection by a TPO (ref:001/1997 T2), however the Ash is located outside the site boundary and will not be impacted by the proposals.
- v) **Arboricultural Impact.** The arboricultural impact of the proposed development is low and is described by net tree losses, totalling the partial removal of two areas of native scrub and a lapsed agricultural hedgerow. A preliminary tree protection drawing is appended to this document to demonstrate the deliverability of safeguarding measures. Conclusions drawn against Cherwell District Council's development control policies conclude that the development proposal is acceptable from the arboricultural perspective.

1 Introduction

1.1 Background & Proposals

1.1.1 Aspect Arboriculture are commissioned by Manor Oak Homes to prepare an Arboricultural Survey and Impact Assessment relating to the proposed development of land at Hanwell Fields, Banbury.

1.1.2 The development proposals comprise *'Outline planning application for up to 78 dwellings and associated open space with all matters reserved other than access'*.

1.2 Site Overview

1.2.1 The application area falls within the administrative control of Cherwell District Council. The site is triangular in shape and currently open arable land, located to the north of Banbury. The site is surrounded by further arable land to the north and west. The southern boundary abuts Dukes Meadow Drive.

1.3 Existing Tree Stock

1.3.1 There are eight trees of individual distinction recorded within the tree survey, six groups of trees and two hedgerows. They have all been considered in full during the design stages of the project in accordance with BS5837:2012.

1.3.2 Trees within influence of the application area are confined to the site's external boundaries. The site is primarily of low arboricultural interest, with few trees considered to hold any arboricultural value beyond their collective merit or their role and function as boundary features.

1.3.3 Although under the applicant's control, a veteran Ash occupies land to the west of the site, and outside the boundary (refer to T2 within appendix B). The Ash has a large trunk diameter in comparison to others of the same species and when assessed against published data¹, it is large enough to be considered notable and possess a sufficient number of features commensurate to veteran tree status²; including an above average quantity of internal deadwood of large diameter, tear out wounds, fungal fruiting bodies, and a significant cavity at the base with active decay. In accordance with BS5837:2012 and current Natural England Standing Advice, T2 has been awarded an enlarged veteran tree buffer equivalent to a radius of 17.9m and category A, as a tree of high arboricultural quality and conservation value.

¹ Lonsdale, D. (ed) (2013) Ancient and other veteran trees: further guidance on management. The Tree Council, London 212pp.

² Forbes-Laird, J. (2018) Recognition of Ancient, Veteran & Notable Trees – RAVEN.

- 1.3.4 Other trees of value are also located outside the site on third party land adjacent to Dukes Meadow Drive, comprising Silver Birch and two cohesive assemblages of Ash, Oak, Field Maple, Goat Willow, Hawthorn, Cherry, Silver Birch, Gorse, Hazel and Privet. Collectively the trees forming both groups make a positive contribution to visual amenity commensurate to BS5837 category B (refer to T3, G3 and G4 in appendix B).
- 1.3.5 The remaining trees defining, or adjacent to, the southern boundary comprise individual stems of Goat Willow and Whitebeam, along with additional assemblages of species described at paragraph 1.3.4 (refer to T4-T7, G1, G2, G5 and G6 within appendix B). These trees are of low arboricultural interest and typically represent unremarkable examples of their type considered to warrant BS5837:2012 category C.
- 1.3.6 The remaining assemblage recorded within the tree survey is located along the northern and western boundaries and comprises two agricultural native hedgerows and an early-mature Ash lapsed coppice stool (refer to T1, H1 and H2 within appendix B). These trees provide a low contribution to the amenity of the site equivalent to BS5837:2012 category C i.e. trees of low quality.

2 Statutory Designations

2.1 Conservation Area

- 2.1.1 Background checks have confirmed that the site does not occur within a Conservation Area (Cherwell District Council, cited September 2021). Accordingly, the amenity value of the trees is not elevated to preserving or enhancing any unique or distinctive interest linked to the setting.

2.2 Tree Preservation Orders

- 2.2.1 Background checks have also confirmed that there are no trees within influence of the site that are afforded protection by a Tree Preservation Order (Cherwell District Council, cited September 2021). A single Ash, under the applicant's control, has been afforded protection by a TPO (ref:001/1997 T2), however the tree is located outside the site boundary and will not be impacted by the proposals.

3 Policy Review

3.1 The National Planning Policy Framework

- 3.1.1 The NPPF (2021) provides planning policy guidance at a National level. Paragraph 131 of the Framework details the aspiration to secure increased tree cover within new developments, comprising both new tree planting, and the retention of existing trees where possible: *'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 and decisions 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.'*

- 3.1.2 Building upon paragraph 131, the Framework also considers that *'decisions should contribute to and enhance the natural and local environment by: recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland'* (para 174b).
- 3.1.3 In respect of Veteran Trees and Ancient Woodland, paragraph 180c requires that development proposals award particular consideration to these important features; *'development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists'*.
- 3.1.4 Although recorded within the tree schedule, the veteran tree (T2) is not within the site boundary and will not be impacted by the development proposals. Though for clarity, there are no veteran or ancient trees, or any designated areas of ancient woodland within influence of the site, against which the tests of para. 175c can be applied.
- 3.1.5 In addition, paragraph 180d also emphasizes the benefit that can be secured through the provision of public access to, and resultant appreciation of, retained tree cover, stating: *'...opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can... enhance public access to nature where this is appropriate.'*

3.2 Cherwell District Council

- 3.2.1 At a local level, Cherwell District Council has a statutory obligation to ensure adequate provision is made for the preservation of trees through Section 197 of the Town and Country Planning Act (1990). Cherwell District Council's Local Plan 2011-2031 (adopted July 2015) is understood to be the Council's primary development control document; Within which, Policies ESD 10, ESD 13 and ESD 15 are considered relevant to trees in the context of development (relevant parts reproduced below).

3.2.2 **POLICY ESD 10:** Protection and Enhancement of Biodiversity and the Natural Environment

'Protection and enhancement of biodiversity and the natural environment will be achieved by the following:

The protection of trees will be encouraged, with an aim to increase the number of trees in the District.'

3.2.3 **POLICY ESD 13:** Local Landscape Protection and Enhancement

'Opportunities will be sought to secure the enhancement of the character and appearance of the landscape, particularly in urban fringe locations, through the restoration, management or enhancement of existing landscapes, features or habitats and where appropriate the creation of new ones, including the planting of woodlands, trees and hedgerows.'

3.2.4 POLICY ESD 15: The Character of the Built and Historic Environment

‘Successful design is founded upon an understanding and respect for an area’s unique built, natural and cultural context. New development will be expected to complement and enhance the character of its context through sensitive siting, layout and high quality design. All new development will be required to meet high design standards. Where development is in the vicinity of any of the District’s distinctive natural or historic assets, delivering high quality design that complements the asset will be essential.

New development proposals should:

Contribute positively to an area’s character and identity by creating or reinforcing local distinctiveness and respecting local topography and landscape features, including skylines, valley floors, significant trees, historic boundaries, landmarks, features or views, in particular within designated landscapes, within the Cherwell Valley and within conservation areas and their setting.’

4 Arboricultural Impact

4.1 Net Tree Removals³

4.1.1 Trees are recommended for removal where: a) it is necessary and unavoidable to site development within proximity to existing trees, such that they cannot be confidently retained in the long-term as living features, and/or b), where the amenity value of the tree will be significantly reduced as a result of the proposals, particularly if already of a low retention priority.

4.1.2 Tree removals necessary to implement the proposed development are shown at Table 1 below, and can be quantified as the partial removal of two areas of native scrub and a lapsed agricultural hedgerow.

4.1.3 **Table 1:** Net Tree Removals by BS5837 Category.

Category A	Category B	Category C
None	None	G1+Δ
		G5+Δ
		H1+Δ

+ Denotes assemblage of three or more species (refer to appendix B)

Δ Denotes partial removal of tree group or hedge

¹All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

4.1.4 Based on the submitted layout and access proposal, removals are expected to be limited to those required to gain vehicular access off Wroxham Road, agricultural access to retained land and to provide pedestrian connectivity from the development parcels to existing development outside the site. It is highly unlikely that any further tree loss will be required following detailed design.

4.1.5 Removals major on low quality trees and lapsed agricultural hedgerows. Subsequently, their absence will not harm the amenity of the site, or the wider area and it will be possible to mitigate for their loss with replacement planting of a comparable scale and assemblage.

4.2 Vulnerable Trees

4.2.1 Based on the parameter plan, the proposals' arboricultural impact arising through encroachment within root protection areas is expected to be low. The internal road structure is shown to encompass the development providing a separation between trees and development. Fronting units onto tree belts will mitigate against any unreasonable requests to undertake tree works post occupation.

4.2.2 The constraints posed by the site's existing trees have been identified in accordance with BS5837:2012, and there is sufficient information available to inform detailed design and to provide a high level of confidence with regards to the scheme's capacity to retain trees of value.

4.2.3 When detailed design is undertaken, arboricultural advice in accordance with Clause 5 of BS5837:2012 should be provided to minimise any potential arboricultural impact of the final scheme of development. Regard will be given to this assessment and there will be a further opportunity for any adverse impact to be assessed, with any additional impacts addressed as part of a future reserved matters application. Ongoing arboricultural input could be secured by condition via a request for an Arboricultural Method Statement or an additional Arboricultural Impact Assessment.

4.3 Pruning Works⁴

4.3.1 The need for pruning work to accommodate the development proposal is also expected to be low and limited to crown lifting work where trees will be retained adjacent to internal roads.

4.3.2 To limit the need for pruning work, it is recommended that particular consideration is given during detailed design to ensure sufficient spatial separation is provided between trees of value and the built form. Should pruning work be required, it should be restricted to the shortening of secondary lower branches only, to avoid the potential for having a negative effect on health, vitality or amenity value.

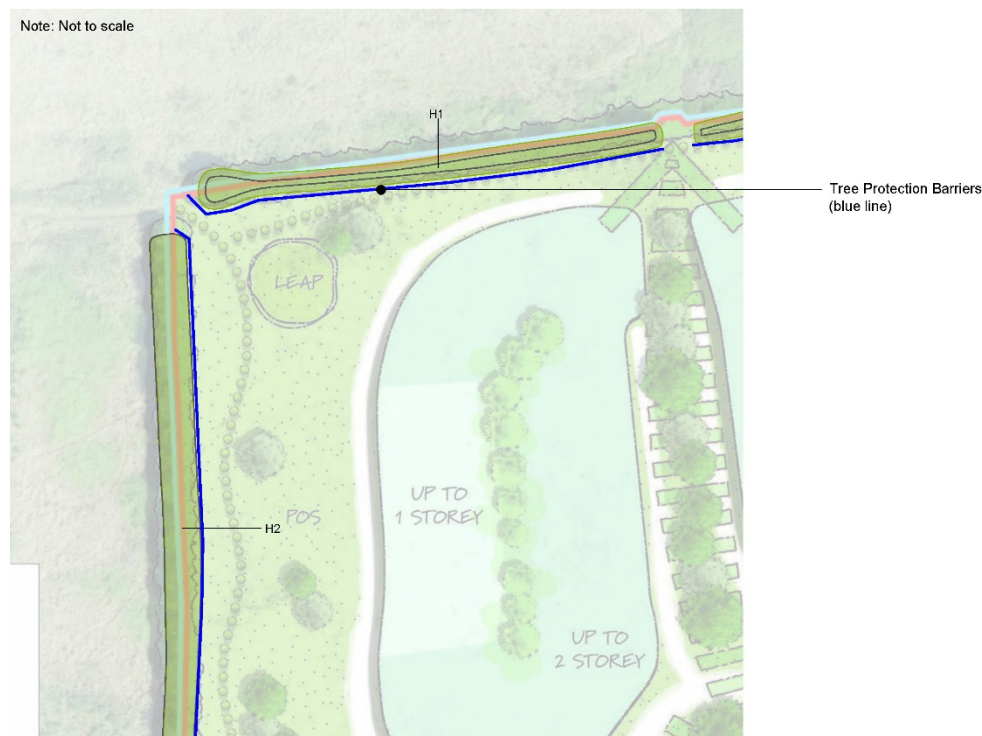
⁴ All tree works should be timed to avoid the main nesting season for birds between 1st March and 31st August. If scheduled within this period it is recommended that an ecologist is present to advise on any necessary protective measures, and on hand to confirm that tree works are not likely to cause disturbance to nesting birds.

4.3.3 Although not required to accommodate the development, it is recommended that throughout the entire site, dead branches are removed from the canopies of retained trees to help relieve occupier's apprehension and mitigate the risk of future tree related hazards emerging. The removal of deadwood should be carried out in accordance with section 7.3 of BS3998:2010, by a competent tree contractor, to ensure that cuts are performed correctly and positioned so as to avoid future structural defects or physiological issues, facilitate growth and maintain aesthetic value.

4.4 Protective Barriers

4.4.1 It will be important to protect retained trees' above-ground structures and underlying RPAs from damage during construction. To achieve this, tree protection barriers should be erected prior to the commencement of any works and consist of the barrier specification illustrated within the Tree Protection Plan at appendix C. The locations where protective fencing should be erected are illustrated within the Tree Protection Plan (Appendix C) with a bold blue line (refer to Figure 1 overleaf).

4.4.2 **Figure 1.** Protective Barrier Positions.



4.5 Mitigation Replanting

4.5.1 The principle of tree removal generates a requirement for replacement planting, which has been recognised during design. Accordingly, the layout has been designed to provide opportunities for incorporating new and replacement tree planting throughout the site. Under separate instruction, Aspect Landscape Planning have prepared a Landscape Strategy Plan which outlines the preferred approach to incorporating new tree planting.

5 Conclusions

- 5.1.1 Pursuant to Cherwell District Council's Policy requirements, the proposals have been informed by a survey of the existing tree stock using the guidance provided at BS5837:2012.
- 5.1.2 Based on the parameter plan, the direct arboricultural effect of the proposed development will be low. Removals major on the partial clearance of two areas of native scrub and a lapsed agricultural hedgerow, whose loss it will be possible to mitigate for with replacement planting.
- 5.1.3 Tree cover defining the sites boundaries will largely be retained and their function and integrity as boundary features will not be affected by the proposals. All trees of value can be integrated safely within the proposed development, including the veteran Ash which will remain unaffected as it is located outside the boundary of the site.
- 5.1.4 The development presents ample opportunities to incorporate new tree planting within areas of P.O.S. which will provide an uplift in tree numbers and associated amenity benefits. A bespoke landscape strategy which demonstrates how this will be achieved is submitted separately.
- 5.1.5 A preliminary scheme for safeguarding retained trees has been prepared which relies on the use of standard barrier techniques and ground boarding, however this work should be reviewed / expanded during detailed design.
- 5.1.6 The proposed development is considered acceptable from the arboricultural perspective, subject to ongoing input during detailed design and the adoption of safeguards for protecting trees throughout the development. It is our subsequent judgement that the proposals do not conflict with Cherwell District Council's Policy ESD 10, ESD 13 and ESD 15, or the NPPF where the retention of the veteran Ash will be achieved.

6 Recommendations

- 6.1.1 Pursuant to the Council's preference to ensure confident tree retention during the development, an Arboricultural Impact Assessment should be produced following detailed design, alongside a detailed Arboricultural Method Statement which expands on Appendix C. This work could be secured by Condition.
- 6.1.2 An additional Arboricultural Impact Assessment should assess a detailed layout in accordance with Clause 5 of BS5837:2012. The Arboricultural Method Statement could address matters including: specification for tree protection barriers, revisions to barrier locations; a schedule of tree works; works within RPAs; a scheme for auditing tree protection and subsequent reporting to the Council should feature explicitly throughout. Detailed Tree Protection Drawings should be prepared to 1:500 scale to support the AMS, with detail given of proposed levels and service routes.

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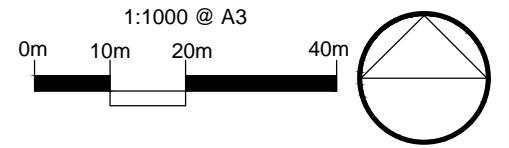
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APPENDICES

APPENDIX A

TREE CONSTRAINTS PLAN (10791 TCP 01)



- KEY:**
- Site Boundary
 - 15 Tree Numbers
 - Tree Canopies
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Veteran Buffer
 - Intermittent Group

Note: Tree group G1 has been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 17525-7-853-865.dwg).



Cited from Google Earth

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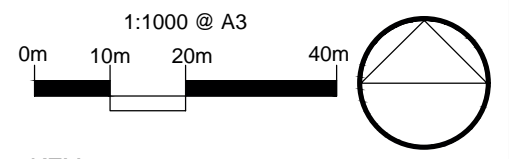
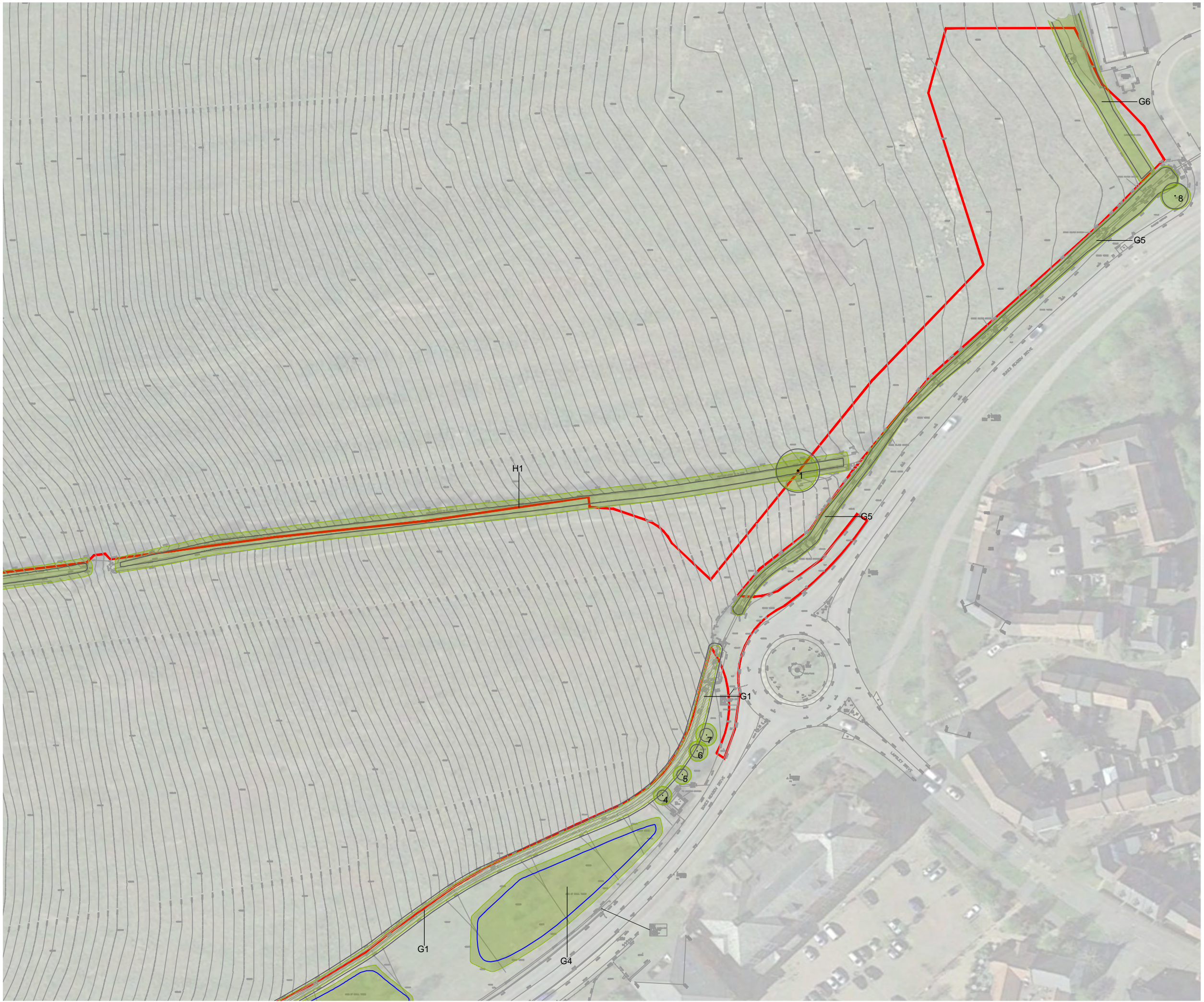


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 Tree Constraints Plan**

CLIENT
Manor Oak Homes

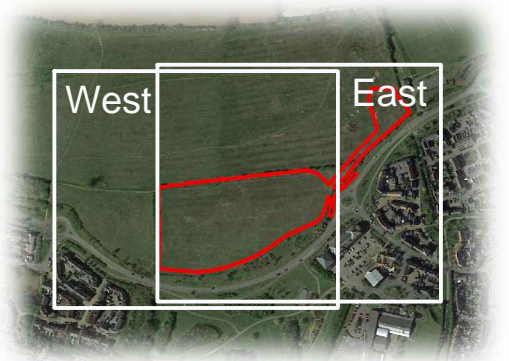
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DRAWING NUMBER	REVISION	
10791 TCP 01 Rev A (West)	A	

Based on: 17525-7-853-865.dwg



- KEY:**
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REV	DATE	NOTE	Drawn	Chk'd



TITLE
Land at Hanwell Fields, Banbury
Tree Constraints Plan

CLIENT
Manor Oak Homes

SCALE	DATE	DRAWN
1:1000 @ A3	SEP 2021	JH / TR
DRAWING NUMBER	REVISION	
10791 TCP 01 Rev A (East)	A	

Based on: 17525-7-853-865.dwg

APPENDIX B

TREE SURVEY SCHEDULE (10791 TS 01)

**BS 5837:2012 Tree Schedule: Land at Hanwell Fields,
Banbury**

BS5837:2012 Tree Survey: Explanation of Survey Criteria

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W	radial							

Sequential reference number cited on all aspect drawing.

Height and Crown spread measured to the nearest half meter; # denotes where this is estimated.

e.g.: young, semi-mature, early-mature, mature or over-mature

*Area around tree deemed to contain sufficient roots and rooting volume to maintain the tree's viability, and where the protection of roots and soil structure is a priority. *The RPA has been manipulated to allow for various site features, i.e. roads, structures or changes in levels. Please refer to the Tree Constraints Plan for these changes.*

Category prefix A-C denotes arboricultural quality, decreasing from A (high) to C (low); Subcategories 1, 2 and 3 highlight associated arboricultural (1), landscape (2) and ecological (3) qualities.

Category U trees are those in such a condition that they cannot be realistically retained as living trees in the current context for the long term.

Measured to the nearest 10mm; # denotes estimated diameter where access is not possible.

e.g.: above-average, average, below average or dead

General observations, i.e. defects, preliminary management recommendation, presence of pests/disease, perceived significance.

Height of first significant branch and/or canopy

e.g.: good, indifferent, poor, or hazardous

Colour band key:

- Category A
- Category B
- Category C
- Category U

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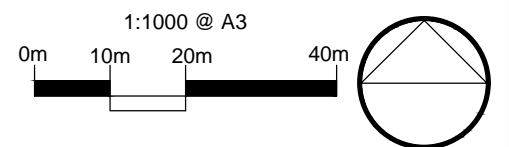
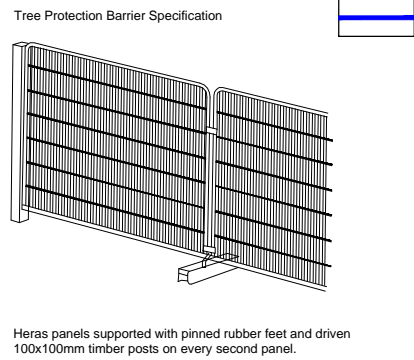
Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
1	Ash	290 280 245 160	8.5	5#	5.25	5.5	6.25		2.25	1.25	Early Mature	Below Average	Poor	Short annual extension growth Lapsed coppice stool, unions tight and included Unsympathetic pruning to lower crown Unremarkable example of species	C12	6
2	Ash	1190	20.5	8.75	8.75	6.5	9.25		3.25	1	Veteran	Below Average	Poor	Stand alone specimen Significant cavity at base to north with signs of active decay, recommend PICUS investigation to determine extent of dysfunctional wood Established epicormic growth forming secondary lower crown Woodpecker holes throughout scaffold limbs to west <i>Inonotus hispidus</i> fruiting bodies in upper crown Large tear out wound at c.6m, exposing ripewood Above average internal deadwood of large diameter Dieback throughout crown Considered to be of high arboricultural value due to Veteran status	A123	14.4 17.9 Veteran Tree Buffer
3	Silver Birch	340	13.5	5	4.5	5	4.5		1.5	0.25	Early Mature	Average	Indifferent	Dominant component of G2 Average internal deadwood Prominent within views from adjacent road	B2	4.2
4	Goat Willow	20*30#	5					2.5	0.25	0.25	Semi Mature	Average	Indifferent	Situated outside of sites boundary Multi-stemmed from ground level Low arboricultural value	C12	1.5
5	Goat Willow	20*30#	5					2.5	0.25	0.25	Semi Mature	Average	Indifferent	Situated outside of sites boundary Multi-stemmed from ground level Low arboricultural value	C12	1.5
6	Whitebeam	140	7	2.75	3	2.75	2.25		1.5	0.5	Semi Mature	Below Average	Indifferent	Situated within roadside grass verge Vigorous basal epicormic growth Readily replaceable at current size Low arboricultural value	C12	1.8
7	Whitebeam	155	7	3.25	2.75	3	3		1.75	1	Semi Mature	Below Average	Indifferent	Situated within roadside grass verge Vigorous basal epicormic growth Readily replaceable at current size Low arboricultural value	C12	1.8
8	Horse Chestnut	310	5	3.25	4.25	3.75	4		0.25	1.5	Semi Mature	Below Average	Poor	Unremarkable example of species Squat crown form Poor vigour	C12	3.6

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
G1	Ash Cherry Goat Willow Hawthorn Gorse Guelder Rose Cherry	150 max	6 max					1.25 av	0.5 av	0.5 av	Young to Semi Mature	Below Average	Indifferent	Intermittent native scrub boundary group Readily replaceable at current size Low arboricultural value	C12	1.8
G2	Beech Cherry Goat Willow English Oak	230 max	9.5 max					4 av	1 to 2.5	1 to 2	Semi Mature	Average	Indifferent	Intermittent group of seven establishing roadside plantings Readily replaceable at current size Low arboricultural value	C12	2.7
G3	Ash English Oak Field Maple Goat Willow Fastigiata Oak Hawthorn Cherry Goat Willow Common Gorse Hazel Privet Silver Birch	350 max	10 max					5 max	0.5 to 3	0.5 to 5	Young to Early Mature	Below Average	Indifferent	Roadside collection of established plantings Forms mutually suppressed and cohesive canopy Contributes to screen of adjacent road Individually of low significance, moderate value as collective	B2	3.9
G4	Cherry Ash English Oak Field Maple	250 max	9 max					4.75 max	1 av	1 av	Young to Semi Mature	Average	Indifferent	Roadside collection of established plantings Forms mutually suppressed and cohesive canopy Contributes to screen of adjacent road Individually of low significance, moderate value as collective	B2	3
G5	Field Maple Dogwood Blackthorn Cherry Goat Willow Ash Silver Birch Hazel	100 av	2 to 6					1.5 av	0.5 av	0.5 av	Young to Semi Mature	Average	Indifferent	Planted native scrub within highway verge Unremarkable examples of the species	C12	1.2
G6	Field Maple English Oak Dogwood Blackthorn Goat Willow Ash Hazel Lime	130	5 to 9					3 av	1 av	0.5 av	Semi Mature	Average	Indifferent	Cohesive native buffer planting Filters views of the site from adjacent land Ash dieback present on occasional trees	C12	1.5

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)				Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	Comments	BS5837 Category	RPA Radius (m)
				N	E	S	W									
H1	Hazel Hawthorn Dogwood English Oak Goat Willow Blackthorn Elder Cherry	4*80 av	5 av					3.25 av	0.25 av	0.25 av	Semi Mature to Early Mature	Average	Indifferent	Unmanaged intermittent field boundary hedgerow	C12	1.8
H2	Blackthorn Hawthorn	4*125 3*90 av	6 max					3.5 av	0.25 av	0.25 av	Semi Mature to Early Mature	Average	Indifferent	Unmanaged intermittent field boundary hedgerow	C12	3.6

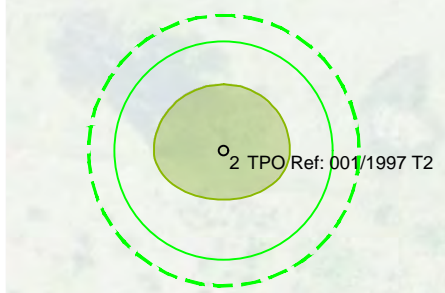
APPENDIX C

TREE PROTECTION PLAN (10791 TPP 01)

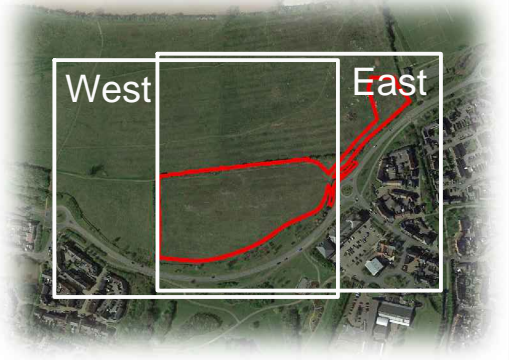


- KEY:
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 - Tree Numbers
 - Tree Canopies
 - Category 'A' RPA
 - Category 'B' RPA
 - Category 'C' RPA
 - Veteran Buffer
 - Intermittent Group
 - Trees to be Removed
 - Tree Protection Barrier

Note: Tree group G1 has been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 17525-7-853-865.dwg).



- Site Boundary
- Other Land Ownership
- Up to 1 storey
- Up to 2 storey
- Up to 3 storey
- 4 storey
- Site Access
- Pedestrian Links
- Existing Vegetation
- Proposed Trees
- Green Fingers
- Green Corridor
- Public Open Space
- Proposed Development Parcels
- Proposed Vehicular Routes
- Proposed SuDS Locations
- Proposed Play Area



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd



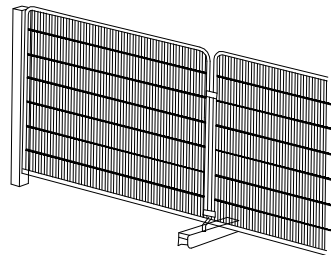
TITLE
Land at Hanwell Fields, Banbury
Tree Protection Plan

CLIENT
Manor Oak Homes

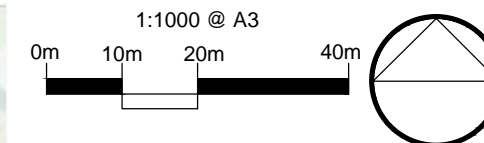
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DRAWING NUMBER	REVISION	
10791 TPP 01 (West)		

Based on: Parameter Plan.pdf











Tree Protection Barrier Specification



Heras panels supported with pinned rubber feet and driven 100x100mm timber posts on every second panel.



KEY:

-  Site Boundary
-  Tree Numbers
-  Tree Canopies
-  Category 'A' RPA
-  Category 'B' RPA
-  Category 'C' RPA
-  Veteran Buffer
-  Intermittent Group
-  Trees to be Removed
-  Tree Protection Barrier

Note: Tree group G1 has been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site (drawing ref: 17525-7-853-865.dwg).



Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd



TITLE
Land at Hanwell Fields, Banbury
Tree Protection Plan

CLIENT
Manor Oak Homes

SCALE	DATE	DRAWN
1:1000 @ A3	SEP 2021	JH / TR
DRAWING NUMBER	REVISION	
10791 TPP 01 (East)		

Based on: Parameter Plan.pdf

APPENDIX D

TREE SURVEY METHODOLOGY

Tree Survey Methodology

The tree survey is a form of Visual Tree Assessment undertaken during July 2021. Tree locations are identified via a topographical survey; locations of any trees excluded from the topographical survey were plotted on site. The purpose of the survey is to record information about trees on or adjacent to the site to inform design options. In keeping with clause 4.4 of BS5837: 2012 'Trees in Relation to Design, Construction and Demolition', the survey provides a record of the following parameters:

Tree Numbers: all individual trees are sequentially numbered. Groups of trees, woodlands and hedgerow are also sequentially numbered with a corresponding prefix relevant to their type e.g. G, W or H respectively; the identification of trees as woodland, groups of trees or within hedgerows is undertaken where appropriate. The identification of trees as individuals within collections has been made where it is considered sensible to make such a differentiation.

Species: listed by common name

Stem Diameter: given in millimetres and obtained by measuring single/multiple stems at 1.5m using a diameter tape in accordance with Annex C within BS5837:2012. Diameters of inaccessible trunks are estimated and provided with the suffix '#'.

Tree Heights: determined using a clinometer and measured to the nearest 500mm. Heights are estimated where specific triangulation is not achievable and by reference to measured trees nearby (provided with the suffix '#').

Crown Spreads: measured at cardinal points using a Leica Disto™ laser distance measurer. Measurements were recorded to the nearest 250mm. Inaccessible crown spreads are estimated based on measured canopies nearby and provided with the suffix '#'

Crown Clearance: The height of the first significant living branch and/or canopy (as appropriate) is recorded using a Leica Disto™ laser distance measurer to inform vertical ground clearance. Crown clearance may be higher or lower than the first significant branch. Estimated clearances are provided with the suffix '#'. Height of first significant branch will be provided where considered advantageous to make the distinction.

Life Stage – The age of trees, groups of trees, hedges and woodlands are defined as follows:

- Young (within the first 1/4th of life expectancy)
- Semi-mature (within the second 1/4th of life expectancy)
- Early Mature (within the third 1/4th of life expectancy)
- Mature (within the fourth 1/4th of life expectancy)
- Over Mature and Veteran (exceeding normal life expectancy)
- Veteran (significantly exceeding normal life expectancy)

Physiological and structural condition: physiological condition defined as follows; good, above average, average, below average, poor or dead. Structural condition is defined as: good, moderate, indifferent, poor or hazardous

Comments: further observations were recorded where necessary i.e. details regarding defects, preliminary management recommendations, presence of pest/disease and perceived significance.

BS5837 Category: pursuant to BS5837:2012 section 4.5 and cascade chart for tree quality assessment (refer to reproduced Table 1 overleaf). Trees qualifying under a given category (A-C and U) and any appropriate subheading (1-3) are considered to fall within the scope of that category's definition.

Estimated Remaining Contribution. Described` as a guideline only and in terms of years: <10, 10+, 20+ and 40+ relevant to category U, C, B and A respectively. This information is not provided on the tree schedule to avoid conclusions based upon 'life expectancy'.

Table 1 Cascade chart for tree quality assessment

Category and definition	Criteria (including subcategories where appropriate)		
Trees unsuitable for retention (see Note)			
<p>Category U</p> <p>Those 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</p>	<ul style="list-style-type: none"> Trees that have a serious, irremediable, structural defect, such that their early loss is expected due to collapse, including those that will become unviable after removal of other category U trees (e.g. where, for whatever reason, the loss of companion shelter cannot be mitigated by pruning) Trees that are dead or are showing signs of significant, immediate, and irreversible overall decline Trees infected with pathogens of significance to the health and/or safety of other trees nearby, or very low quality trees suppressing adjacent trees of better quality <p><i>NOTE</i> Category U trees can have existing or potential conservation value which it might be desirable to preserve; see 4.5.7.</p>		
	1 Mainly arboricultural qualities	2 Mainly landscape qualities	3 Mainly cultural values, including conservation
Trees to be considered for retention			
<p>Category A</p> <p>Trees of high quality with an estimated remaining life expectancy of at least 40 years</p>	Trees that are particularly good examples of their species, especially if rare or unusual; or those that are essential components of groups or formal or semi-formal arboricultural features (e.g. the dominant and/or principal trees within an avenue)	Trees, groups or woodlands of particular visual importance as arboricultural and/or landscape features	Trees, groups or woodlands of significant conservation, historical, commemorative or other value (e.g. veteran trees or wood-pasture)
<p>Category B</p> <p>Trees of moderate quality with an estimated remaining life expectancy of at least 20 years</p>	Trees that might be included in category A, but are downgraded because of impaired condition (e.g. presence of significant though remediable defects, including unsympathetic past management and storm damage), such that they are unlikely to be suitable for retention for beyond 40 years; or trees lacking the special quality necessary to merit the category A designation	Trees present in numbers, usually growing as groups or woodlands, such that they attract a higher collective rating than they might as individuals; or trees occurring as collectives but situated so as to make little visual contribution to the wider locality	Trees with material conservation or other cultural value
<p>Category C</p> <p>Trees of low quality with an estimated remaining life expectancy of at least 10 years, or young trees with a stem diameter below 150 mm</p>	Unremarkable trees of very limited merit or such impaired condition that they do not qualify in higher categories	Trees present in groups or woodlands, but without this conferring on them significantly greater collective landscape value; and/or trees offering low or only temporary/transient landscape benefits	Trees with no material conservation or other cultural value

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