aspect arboriculture

Land West of Hook Norton Road
Sibford Ferris
Banbury

Arboricultural Impact Assessment

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Executive Summary

i) **Introduction.** Aspect Arboriculture are commissioned by Gade Homes to prepare an Arboricultural Survey and Impact Assessment relating to the introduction of consented residential development to Land West of Hook Norton Road, Sibford Ferris, Banbury, Oxon.

ii) **Proposals.** The proposals comprise the introduction of 25no. residential dwellings, including extensive open space provision. Importantly, the current scheme represents only a minor revision from that previously consented.

iii) **Surveys.** The site was surveyed by Aspect in March 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 revealed that the site does not occur within a Conservation Area and that no trees within influence of the application area are afforded protection within a Tree Preservation Order.

v) **Arboricultural Impact.** The arboricultural impact of the proposed development comprises the removal of four short sections of hedgerow to provide pedestrian and vehicular access to the consented development. No veteran or protected trees will be removed to accommodate the proposed development.

A preliminary tree protection drawing is provided to demonstrate the deliverability of safeguarding measures for retained trees. A landscape strategy plan has been produced, which illustrates the approach to securing betterment to the site in arboricultural terms, resulting from an increase in the number, quality and distribution of the site's tree cover.

1 Introduction

1.1 Background & Proposals

1.1.1 Aspect Arboriculture are instructed by Gade Homes to prepare an Arboricultural Survey and Impact Assessment relating to the introduction of consented residential development to Land West of Hook Norton Road, Sibford Ferris, Banbury, Oxon.

1.1.2 The proposals comprise the introduction of 25no. residential dwellings, including extensive open space provision.

1.1.3 The development currently proposed represents only a minor revision of the scheme previously consented at appeal (ref: APP/C3105/W/19/3229631). Importantly, arboriculture did not form a reason for refusal of the outline application, and Cherwell District Council Tree Officer's consultee comments did not raise an objection to the proposed scheme's relationship with existing trees.

1.2 Site Overview

1.2.1 The application area comprises the northern portion of a single agricultural field, immediately to the west of and accessed from Hook Norton Road, Sibford Gower. Currently under arable usage, the existing tree cover is constrained to the boundaries and offsite.

1.2.2 The application area is accessed from Hook Norton Road to the east, which also forms the eastern site boundary; similarly, the site's western boundary is defined by Woodway Road. Both adjacent highways are separated from site by low level maintained agricultural hedgerows. The eastern portion of the site's northern boundary is defined by the curtilages of existing residential dwellings, with an adjacent agricultural field lying offsite further west. To the south, the boundary is currently undefined; the continuation of the arable field immediately abuts the application area.

1.3 Existing Tree Stock

1.3.1 As is typical for the site's current usage, the trees are limited to those which have established on the boundaries and those lying offsite within neighbouring residential gardens.

1.3.2 The site's principal arboricultural constraint comprises two high quality mature English Oak (T13 & T14), set offsite to the northwest. Both are considered to be high quality examples of their species, and capable of a significant and long term contribution to the amenity of the site and the adjacent Woodway Road. On these grounds, both trees are individually considered to warrant category A within BS5837:2012 guidance. The current proposals include a large degree of public open space toward the western extent of the site and subsequently the two Oak will not be affected.

1.3.3 The second key arboricultural feature lies offsite to the east of Hook Norton Road, and comprises an established line of planted trees (T18-T27) fronting Sibford School and within the front gardens of adjacent residential dwellings. Formed of seven Lime, two

Horse Chestnut and one Corsican Pine, the trees collectively provide a significant arboricultural feature defining the entrance to the village from the south. Although individually of moderate arboricultural quality, the collection as a whole is considered to warrant category A within BS5837:2012 guidance.

1.3.4 The site's northern boundary with adjacent residential dwellings is defined by a linear collection of planted trees. Comprising Nordmann Fir, Silver Birch, English Oak, Cherry, Hybrid Black Poplar, Eucalyptus and Laurel, the eastern extent of the boundary is of low arboricultural quality only. Further west, the trees are of markedly better condition; a collection of four English Oak and one Cherry collectively warrants Category B within BS5837:2012.

1.3.5 The remaining tree cover comprises maintained agricultural hedgerows, low quality offsite ornamental trees and hedges, and less well established trees set along the northern and western boundaries. All are considered to warrant category C only within BS5837:2012 guidance, and as such form a limited constraint to the proposed development.

2 Statutory Designations

2.1 Conservation Area

2.1.1 Background checks have revealed that the application area does not occur within a Conservation Area (Cherwell District Council, July 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 confirmed that no trees within influence of the application area are afforded protection within a Tree Preservation Order (Cherwell District Council, July 2021).

3 Policy Review

3.1 The National Planning Policy Framework

3.1.1 The NPPF (2021) provides planning policy guidance at a National level. With respect to arboriculture, four paragraphs are of particular relevance:

3.1.2 Paragraph 131 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.'*

3.1.3 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).

3.1.4 In respect of Veteran Trees and Ancient Woodland, paragraph 180b 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'*.

3.1.5 To confirm, there are no veteran trees or parcels of Ancient Woodland within influence of the site. It is subsequently anticipated that the tests of paragraph 180b will not be applied in respect to this proposed development.

3.1.6 In addition, paragraph 180c also emphasises 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 Adopted Cherwell Local Plan 2011-2031 (Part 1)

3.2.1 In terms of development control at a local level, Cherwell District Council (CDC) 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). The Adopted Cherwell Local Plan Review (adopted July 2015) is the Council's current primary development control document; within which Policies ESD10, ESD13 and ESD15 are the tests within the Local Plan considered relevant to trees in the context of development, and subsequently against which the proposals within CDC's jurisdiction will be considered (the relevant parts are reproduced below).

3.2.2 POLICY ESD10 - 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*
- *If significant harm resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or as a last resort, compensated for, then development will not be permitted.*

3.2.3 POLICY ESD13 – 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 ESD15 – 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 Removals[1]

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 Arboricultural input has been provided during design with revisions including the provision of additional separation between the proposed dwellings and the treed northern boundary. The introduction of the development will resultantly only incur the removal of four short sections of maintained agricultural hedgerow (H1 & H3). To the east, the sections of hedge to be removed comprise one c.2m section, one c.3m section and one c.15m section of hedgerow H1 to accommodate the proposed pedestrian links and vehicular access with Hook Norton Road. To the west, the removal of a single c.3m section of hedgerow H3 is necessary to provide a pedestrian link with Woodway Road.

4.1.3 Importantly, the degree of hedgerow removal required is broadly in line with the arboricultural effect of the outline scheme, which was not objected to by the LPA's Tree Officer.

4.2 Vulnerable Trees

4.2.1 There will be development encroachment within the root protection areas of some retained trees; this can be described as two distinct cohorts. In all cases, it will be possible to manage the encroachment and safeguard the retained trees through deliverable means of construction mitigation.

<u>New Hard Surfacing</u>

4.2.2 The current proposals include the introduction of sections of footpath within the RPAs of English Oak T8 and hedgerow H1.

4.2.3 The section of footpath within the RPA of T8 amounts to only 0.2m^2 (equivalent to 0.1% of the RPA) located on the very periphery of the tree's RPA. At this position, significant roots are not anticipated to be encountered during excavation and the natural turnover of fibrous roots is at its highest. The combination of the small footprint of the excavation and its location, means that the works are not anticipated to detrimentally affect the tree's physiological or structural condition.

4.2.4 As a precautionary measure, where within the RPA, the excavation works necessary to form the footpath are to be undertaken utilising an air spade or hand tools where appropriate (for the first 600mm depth) under arboricultural supervision. This

[1]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.

approach will ensure that avoidable root severance is precluded, and any roots encountered can be pruned to appropriate growth points in accordance with best practice. The area to be excavated by hand is illustrated within Appendix C with an orange hatch.

4.2.5 Similar to the consented scheme, the current proposals include footpaths just to the west of boundary hedgerow H1. To minimise the effect of installing the footpath, it is proposed that it is constructed on an above soil basis, utilising a CellWeb (or similar) sub-base. The extent of footpath to be constructed in this manner is illustrated within Appendix C with a blue wash.

4.2.6 The use of a CellWeb sub-base will preclude the need for excavation works within the RPA of the hedge, thereby preventing root severance, and will also prevent additional compaction of the underlying soil structure. This approach will ensure that the hedge's root system remains intact and that its access to moisture and gaseous exchange is conserved.

Post holes

4.2.7 The proposed scheme also includes the erection of heras site hoarding and domestic boundary fences within the RPAs of tree numbers T3-T9, group number G2 & hedgerow H2, which define the site's northern boundary. The erection of the fences requires the excavation of isolated post holes within the trees' RPAs.

4.2.8 The limited scope of excavation required is not anticipated to be of detriment to the trees' physiology, or future vitality. As a precautionary measure, it will be possible to manage the encroachment and safeguard the retained trees; it is recommended that the post holes are excavated by hand following the guidance of section 7.2 of BS5837:2012. If any large roots are encountered, the position of the posts can be adjusted to enable the roots' retention, and prior to backfilling with concrete, the holes should be lined with an impermeable membrane. This is necessary to prevent concrete leachate from coming into contact with tree roots.

4.2.9 It is known that the site hoarding has been erected in the same manner, i.e. all post holes have been excavated by hand where adjacent to boundary trees and subsequently is not anticipated to have any detrimental effect.

4.2.10 Subject to the adoption of precautionary safeguards, all the works detailed above are considered to be well within the trees' capacity to tolerate and are not expected to have a detrimental effect on any tree's future health or vitality.

4.3 Pruning Works[2]

4.3.1 It will be necessary to prune a section of hedgerow H2 lining the site's northern boundary. This is necessary to provide construction room to install a section of

[2] 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.

footpath and to build the garage associated with Plot 16. The extent of pruning is to be determined onsite, but is anticipated to be limited to the shortening of minor secondary branches only, and to be achievable without affecting the immature hedgerow's structural condition, or the definition of the boundary that it currently provides.

4.3.2 Although not required to facilitate construction, it is recommended that throughout the entire site boundaries, dead branches are removed from the canopies of retained trees. This will help mitigate the risk of future tree related hazards emerging and associated apprehension.

4.3.3 Pruning works should be undertaken in accordance with section 7.3 (for removal of deadwood), and section 7.8 (for selective pruning) of BS3998:2010, by a competent tree contractor. This is necessary to ensure that cuts are performed correctly and positioned to avoid future structural defects or physiological issues, facilitate growth and maintain aesthetic value.

4.4 Protective Barriers and Ground Boarding

4.4.1 It will be important to protect the retained trees' above-ground structures and underlying RPAs from damage during construction works. To achieve this, tree protection barriers should be erected prior to the commencement of any development works. For the direct protection of retained trees, the barriers are to consist of the default barrier specification provided in BS5837:2012, where hedgerows are to be protected, a reduced specification of barrier is considered appropriate.

4.4.2 The reduced 'hedgerow' specification barrier omits the diagonal bracing to the rear, and comprises heras panels, mounted on rubber feet, and secured every second panel with a driven 100x100mm fence post or scaffold pole. The locations for protective fencing are illustrated within the Tree Protection Plan (Appendix C) with a bold blue line illustrating the default barrier, and a dashed light blue line denoting the reduced hedgerow specification.

4.4.3 It is anticipated that protective barriers will need to be repositioned during construction to facilitate the construction of plots 13-15, their associated garages, and the erection of boundary fences Where this will be necessary, secondary fencing positions are illustrated within the TPP with a dotted pink line.

4.5 Mitigation Replanting

4.5.1 The removal of four sections of hedgerow generates a limited requirement for replacement planting. However, to provide the scheme with an attractive setting, the design of the layout incorporates a centrally located area of semi-formal open space, alongside an extensive area of public open space to the west. A Landscape Masterplan has been produced, which illustrates the proposed approach to maximising replacement trees and meaningful new soft landscape within the application area.

4.5.2 The large area of public open space to the west provides the opportunity to secure a meaningful scheme of tree planting to improve the area in arboricultural terms. There is sufficient space to incorporate large canopy bearing, native species, without concern regarding their suitability at maturity. It is also proposed to provide an area of allotments to the southern boundary, and a community orchard further north. These features can provide benefit to the local population and increase the residents' involvement with the soft landscape provision, and directly accords with the recommendations of paragraph 131 of the Framework.

4.5.3 It is also proposed to reinforce the hedgerow defining the site's western boundary, and to introduce a new hedge to define the currently open southern boundary. Both approaches will assist with delivering an appropriate transition between the consented development and the adjacent countryside.

4.5.4 The masterplan includes the introduction feature trees and structural planting within the central area of open space. The planting palette in this area is anticipated to comprise appropriate domestic scale ornamental plantings and structural understorey where space is unavoidably more constrained. The proposed planting scheme will provide year round interest and biodiversity benefit.

4.5.5 Given the limited extent of tree removal required to introduce the proposed development, in combination with the current absence of trees from within the site interior, the proposed development provides an opportunity to secure betterment in arboricultural terms. This will be realised through an increase in the number and quality of trees within the application area and an increase in the extent of canopy cover across the site.

5 Conclusions

5.1.1 The development proposals have been informed by a survey of the existing tree stock and a review of relevant policy tests.

5.1.2 There is an unavoidable requirement to incur the removal of sections of hedgerow to provide access to the consented development. Through sensitive design, the spatial separation between the proposed dwellings and the northern boundary has been increased, when compared with the consented scheme. In accordance with paragraph 131 of the NPPF, the development demonstrably enables the retention of existing trees where possible.

5.1.3 There is a need to mitigate for the limited removals with new tree planting, and there is capacity within the layout for this to be delivered without concern for a reduction in its contribution to visual amenity and providing an increase in canopy coverage. A bespoke landscape strategy which demonstrates how this will be achieved has been prepared and is submitted separately. The strategy will provide a high-quality varied replacement canopy area which will enhance the quality and distribution of trees throughout the application area.

5.1.4 To inform the planning balance, it is our concluding view that the proposals can be supported from the arboricultural perspective and do not conflict with Cherwell District Council's adopted development control policies, or the Framework.

6 Recommendations

6.1.1 Ongoing arboricultural input during detailed design of the scheme will be necessary to ensure that the extent of confident tree retention identified at this stage is realised within the completed development.

6.1.2 A detailed Arboricultural Method Statement supported by 1:500 scale technical drawings should be prepared which expand on Appendix C. This could be secured by Condition. Details of proposed levels, drainage and service routes should be included; a scheme for auditing tree protection and subsequent reporting to the Council should feature explicitly throughout.

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APPENDICES

APPENDIX A

TREE CONSTRAINTS PLAN (10879 TCP 01 Rev A)

1:1000 @ A3

0m 10m 20m 40m

KEY:

- Site Boundary
- 15 Tree Numbers
- Tree Canopies
- Category 'A' RPA
- Category 'B' RPA
- Category 'C' RPA

Note: Trees 1-3 and Groups G1-G3 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site.

Note: The RPA footprint for Trees 13, 14 & 16-29 have been displaced to allow for the effect of the adopted highway. The surface area of the RPA has not been reduced.

Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd

REVISIONS

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TITLE

Land West of Hook Norton Road
Sibford Ferris
Tree Constraints Plan

CLIENT

Gade Homes

SCALE	DATE	DRAWN
1:1000 @ A3	APR 2021	GW
DRAWING NUMBER		REVISION
10879 TCP 01 Rev A		

Based on: 3797.dwg

APPENDIX B

TREE SURVEY SCHEDULE (10879 TS 01)

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BS 5837:2012 Tree Schedule: Land West of Hook Norton Road, Sibford Ferris

10879 TS 01

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BS5837:2012 Tree Survey: Explanation of Survey Criteria

*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.*

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

Sequential reference number cited on all aspect drawing.

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.

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

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.

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							

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

The following survey should not be interpreted as a report on tree health and safety. Aspect's opinion of tree condition and structural potential is valid for a limited period of 12 months from the date of inspection. Validity is assumed in the absence of inclement weather and no change to the trees existing setting.

Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m) N	E	S	W	Radial	First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	BS5837 Category	RPA Radius (m)
1	Nordmann Fir	300#	11m					2.25	1	0.5	Early Mature	Average	Indifferent	C12	3.6
2	Nordmann Fir	350#	10m					2.5	1.25	0.5	Early Mature	Average	Indifferent	C12	4.2
3	Silver Birch	300#	13m					3.5	2.25	1.5	Early Mature	Average	Indifferent	C12	3.6
4	English Oak	300#	10m					3.75	1.75	2	Early Mature	Average	Indifferent	B2	3.6
5	English Oak	450#	13m					5.75	2	2	Early Mature	Average	Indifferent	B2	5.4
6	Cherry	350#	13m					3.5	3.5	2	Early Mature	Average	Indifferent	B2	4.2
7	English Oak	300#	12m					5.25	3.25	3	Early Mature	Average	Indifferent	B2	3.6
8	English Oak	600#	12m	7#	7	8.5	8.5		4	3	Mature	Average	Indifferent	B2	7.2
9	English Oak	200#	7m					2.75	2	2.5	Semi Mature	Average	Indifferent	C12	2.4
10	English Oak	250	8m					3.75	2	3.25	Semi Mature	Average	Indifferent	C12	3
11	English Oak	250	8m					3.5	2	3	Semi Mature	Average	Indifferent	C12	3
12	English Oak	2 x 200	8m					3.25	1.75	3.25	Semi Mature	Average	Indifferent	C12	3.3
13	English Oak	1000	16m	7.75	9.5	9	9#		3	3	Mature	Average	Moderate	A12	12
14	English Oak	900	16m	7	9.5	8.25	9#		3	3	Mature	Average	Moderate	A12	10.8
15	English Oak	2 x 150	6m					4	1.75	1.5	Semi Mature	Average	Indifferent	C12	2.4
16	English Oak	2 x 250	7m					4.5	1.75	2	Semi Mature	Average	Indifferent	C12	4.2
17	English Oak	400	6m					4.75	2	1.5	Early Mature	Average	Indifferent	C12	4.8
18	Lime	980	15m	6.75	7#	6.5	6		2.5	1.5	Mature	Average	Moderate	A2	11.7
19	Horse Chestnut	940	12m	6.25	6#	7	6.5		2.25	1	Mature	Average	Moderate	A2	11.4
20	Horse Chestnut	980	16m	6.75	6#	7.5	7.5		2.5	1.5	Mature	Average	Moderate	A2	11.7
21	Lime	640	15m	4	4#	4.25	5.5		3.5	2.5	Early Mature	Average	Poor	A2	7.8
22	Corsican Pine	880	22m	4	7#	5	8.25		5.5	5	Mature	Average	Moderate	A2	10.5
23	Lime	770	17m	5.25	6#	3	4.5		3.75	3	Mature	Average	Moderate	A2	9.3
24	Lime	960	18m	7	8#	8.75	8		5	4.5	Mature	Average	Moderate	A2	11.4
25	Lime	900	20m	8.25	8#	7	6.75		5.5	3	Mature	Average	Moderate	A2	10.8
26	Lime	950#	20m	8.5	7#	7.25	7.25		4	2	Mature	Average	Moderate	A2	11.4
27	Lime	950#	19m	8.25	7#	7.5	7.25		2.5	1.75	Mature	Average	Moderate	A2	11.4
28	Ash	700#	12m	4	4#	4	4		6.5	5.75	Early Mature	Average	Indifferent	B2	8.4
29	English Oak	650#	18m	8.5	9.5	8.5	6#		2.5	2.5	Early Mature	Average	Moderate	B12	7.8
G1	English Oak Eucalyptus Laurel	2 x 110 90 max.	2 ave. 7 max.					1.75	0.5	0.5	Semi Mature - Early Mature	Average	Indifferent	C12	2.1
G2	Dogwood Hybrid Black Poplar	650 max.	7m					2.25	1.5	1.5	Mature	Average	Poor	C12	7.8 max.
G3	Hawthorn Ash Sycamore Elm	150 max.	6 max.					1.5	0.5	0.5	Early Mature	Average	Indifferent	C12	1.8 max.

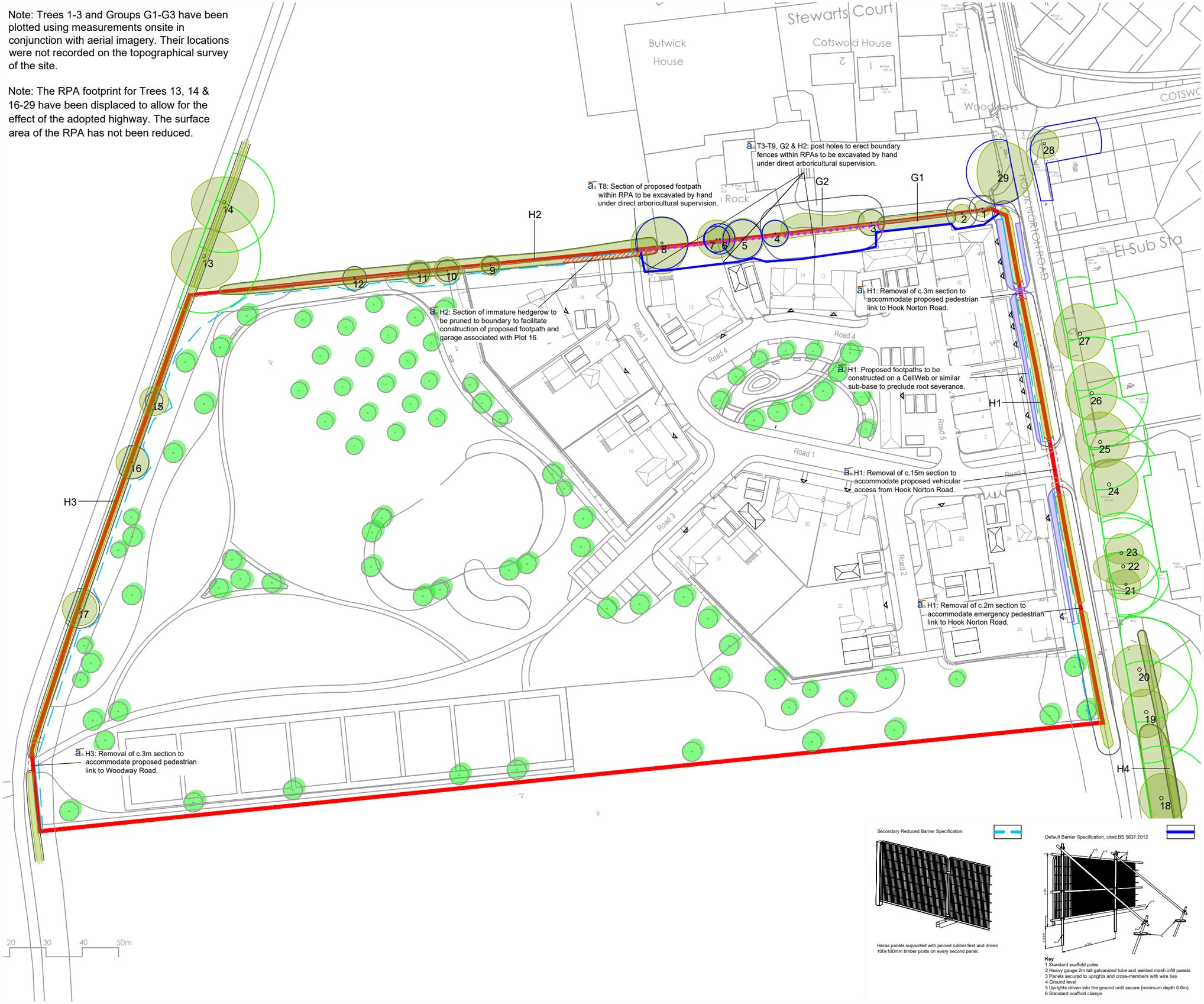
Tree Number	Common Species Name	Trunk Diameter (mm)	Height (m)	Crown Spread (m)					First Significant Branch (m)	Crown Clearance (m)	Life Stage	Physiological Condition	Structural Condition	BS5837 Category	RPA Radius (m)
				N	E	S	W	Radial							
H1	Ash Hawthorn	3 x 150 max.	2m					1.25	0.5	0.5	Mature	Average	Indifferent	C12	3
H2	Ash Hawthorn	100	2m					1	0.5	0.5	Young	Average	Indifferent	C12	1.2
H3	Ash Hawthorn	100 ave.	2m					0.75	0.5	0.5	Mature	Average	Indifferent	C12	1.2

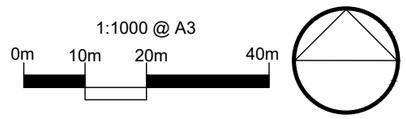
APPENDIX C

TREE PROTECTION PLAN (10879 TPP 01 Rev A)

Note: Trees 1-3 and Groups G1-G3 have been plotted using measurements onsite in conjunction with aerial imagery. Their locations were not recorded on the topographical survey of the site.

Note: The RPA footprint for Trees 13, 14 & 16-29 have been displaced to allow for the effect of the adopted highway. The surface area of the RPA has not been reduced.





KEY:

- Site Boundary
- Tree Numbers
- Tree Canopies
- Category 'A' RPA
- Category 'B' RPA
- Category 'C' RPA
- Pruning Works
- Trees to be Removed
- Tree Protection Barrier
- Tree Protection Barrier (Secondary Specification)
- Tree Protection Barrier (2nd Position)
- Manual Excavation
- Above Soil Surfacing

Cited from Google Earth

REV	DATE	NOTE	Drawn	Chk'd

REVISIONS

aspect arboriculture

TITLE

Land West of Hook Norton Road
Sibford Ferris
Tree Protection Plan

CLIENT

Gade Homes

SCALE	DATE	DRAWN
1:1000 @ A3	AUG 2021	JB

DRAWING NUMBER	REVISION
10879 TPP 01 Rev A	

Based on architects' plan: 3699 Scheme 14

Secondary Reduced Barrier Specification

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

Default Barrier Specification, cited BS 5837:2012

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

APPENDIX D

TREE SURVEY METHODOLOGY

Tree Survey Methodology

The tree survey is a form of Visual Tree Assessment undertaken during March 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)			
Category U 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	• 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 *NOTE Category U trees can have existing or potential conservation value which it might be desirable to preserve; see **4.5.7**.*		
	1 Mainly arboricultural qualities	**2 Mainly landscape qualities**	**3 Mainly cultural values, including conservation**
Trees to be considered for retention			
Category A **Trees of high quality** with an estimated remaining life expectancy of at least 40 years	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)
Category B **Trees of moderate quality** with an estimated remaining life expectancy of at least 20 years	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
Category C **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	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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