

ARBORICULTURAL IMPACT ASSESSMENT

Land to the East of
Cuckfield

19th November 2019

Andrew Cunningham
FdSc (Arb) Tech Cert (Arbor.A)
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Barton Hyett Associates
Arboricultural Consultants

Summary table		
Site Name:	Land to the east of Cuckfield	
Project reference:	G.3423	
Site Address:	Hanlye Farm, Hanlye Lane, Cuckfield, Mid Sussex	
Nearest Postcode:	RH17 5HH	
Central Grid reference:	TQ 31096 25584	
Local Planning Authority:	Mid Sussex District Council	
Relevant planning policies:	Mid Sussex District Plan 2014-2031: DP37 Trees, woodland and hedgerows;	Mid Sussex District Plan 2014-2031: DP37 Trees, woodland and hedgerows;
Statutory Controls:	Tree Preservation Order	Conservation Area
	Yes - ref: CU/03/TPO/95	No
Soil Type: (Source: BGS online soils map © NERC 2019)	Superficial/Drift	Bedrock
	None recorded	Upper Grinstead Clay - Mudstone. Sedimentary
Topographical Survey:	Cuckfield Site level survey (2011)	
Site Layout:	Barton Wilmore - SK_120963-1 - 13.09.19	
Notes:	None	
Report author:	Andrew Cunningham FdSc (Arb) Tech Cert (Arbor.A) M.Arbor.A	
Checked by:	Richard Hyett, MSc, BSc (Hons), M.Arbor.A, MICFor	
Date of issue:	19th November 2019	

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1. Instruction

- 1.1. Barton Hyett Associates Ltd have been instructed by Glenbeigh Developments Ltd. to survey trees located on land to the east of the village of Cuckfield, West Sussex, ('the site') in accordance with BS5837:2012 '*Trees in relation to design, demolition and construction - recommendations*'.
- 1.2. The scope of the instruction was to inspect and survey the trees on site to enable an arboricultural assessment to be made on the viability of the site for development in accordance with Policy DP37:Trees, woodland and Hedgerows within the adopted District Plan 2018.

2. Site Description

- 2.1. The site is located approximately 2 miles to the north-west of the town of Haywards Heath and to the north-east of the main village centre of Cuckfield. The site lies to the south of Hanlye Lane and east of Ardlingly Road. Currently, the site is a number of agricultural fields which are being utilised for grazing livestock (horses). The site is broadly separated in to two areas (northern and southern). The two clear areas are separated by a substantial linear group of trees which bisects the site from west to east.
- 2.2. The site covers circa 5.75Ha with the arboricultural resource being made up of linear groups of trees, individual trees, wooded groups and hedgerows. The nature of the site is considered to be typical for an agricultural site in this location.
- 2.3. There are a number of public rights of way that pass through the site. These are located within the southern region and navigate west to east as well as north to south. There are no watercourses on site but there is a large pond located off-site and adjacent to the north-western corner of the site.
- 2.4. The site is not located within a Conservation area, but a number of the trees on site are protected by a Tree Preservation Order (TPO). The TPO is referenced CU/03/TPO/95, on the Mid Sussex District Council web mapping service, and relates to trees mostly located through the central area of the site. The resolution and information available on the online mapping is not clear enough to be definitive on which trees are protected, however, it is believed the TPO protects the following trees (as identified in the tree survey):

T2, T3, T6, T7, T8, T9, T10, T13, T14, G6, T15, T16, T18

3. Tree Survey Findings

- 3.1. A total of 21 trees, 16 groups of trees, 1 hedgerow were identified and surveyed. These are summarised in terms of their quality in accordance with the recommendations of BS5837 below, and shown in more detail on the tree survey and constraints plan (section 2) and within the tree survey schedule (section 3).

	Total	A - High quality trees whose retention is most desirable.	B - Moderate quality trees whose retention is desirable.	C - Low quality trees which could be retained but should not significantly constrain the proposal.	U - Very poor quality trees that should be removed unless they have high conservation value.
Trees	21	13	5	2	1
Groups	16	5	9	2	-
Hedgerows	1	-	1	-	-
Woodland	-	-	-	-	-
Total	38	18	15	4	1

- 3.2. The majority of surveyed features were assessed as being of high-quality (Category A), with a similar number as moderate-quality (quality category B). In addition, a small number were identified as low-quality (Category C).
- 3.3. One tree (T19) was identified as Category U and considered unsuitable for retention in the sites current context. This is a standing dead tree which is located close to an existing public right of way. This tree should be removed as part of appropriate arboricultural management and irrespective of the potential development.

4. Proposed Development

- 4.1. An indicative layout design has been produced to demonstrate the nature of the proposed development. The current layout design includes an area of residential housing within the northern part of the site and a community parkland area within the southern. The community parkland could include formal play areas and attenuation ponds.

5. Preliminary Arboricultural Impact Assessment

- 5.1. This preliminary arboricultural impact assessment (AIA) is based on the indicative layout. It assess the potential impacts the current indicative layout may have upon the existing arboricultural resource within the site. Given the stage the proposed development is currently at, the AIA identifies the impacts and offers guidance on how these could be minimised, mitigated or avoided altogether.

Tree Removals

- 5.2. The indicative layout shows that to implement the development proposals no trees, tree groups or hedgerow will have to be removed in their entirety. However, sectional removals will be required to one hedgerow (H1) and five tree groups (G5, G6, G10, G13 and G16). Only a small section of H1 will need removal to allow the construction of the proposed vehicle access. No TPO'd trees will require removal to enable the vehicle access to be constructed. It should be noted that tree group G6 is currently protected by a Tree Preservation Order (TPO).
- 5.3. The significance of these sectional removals is reasonably low as they are restricted to moderate-quality items and all of the high-quality (Category A) and the majority of moderate-quality (Category B) survey items could be retained in their entirety. An indicative tree retention and removal plan showing the anticipated tree removals is included in section 5.

Potential Impacts upon retained trees

- 5.4. There are no structures on site, so there will be no impacts arising from demolition works.
- 5.5. Minor facilitation pruning will be required to the vegetation adjacent to the new access in to the site from Hanlye Lane in the North. This is to allow adequate visibility splays for vehicles existing the proposed site access. The pruning relates to high-quality (Category A) group G2 and moderate-quality (Category B) hedgerow H1. These works are considered relatively minor and would have little impact to the overall health of the trees if undertaken appropriately.
- 5.6. At this stage in the development process there is no information regarding service installation available. However, an assessment of the indicative layout indicates these can be positioned within the internal road network and outside of root protection areas (RPAs) of retained trees. During the detailed design process the project arboriculturist should be consulted on proposed service routes to ensure impact to the arboricultural resource is avoided or kept to an acceptable level. This may require alternative approaches to installation including trenches techniques.

- 5.7. The site is reasonably level within the northern region but does drop away to the south. All proposed new dwellings will be located within the northern section of the site and it is anticipated that the required ground level changes will be minimal. Once the detailed level information comes forward the project arboriculturist should make a full assessment on potential impacts from ground level change and set out clear guidance to how these impacts may be limited. The approach to be adopted at the detailed design stage will be to maintain existing ground level with RPAs of retained trees.
- 5.8. The indicative layout shows that two dwellings are proposed within the RPA of high-quality (Category A) Oak tree (T13) and on the edge of the RPA of moderate-quality (Category B) Oak tree (T14). Both of these trees are protected by TPO. This will result in impacts occurring to the root systems of these trees that will likely affect the long-term health of the trees. These impacts should be avoided and this matter could easily be addressed through minor amendments to the site layout design. The project arboriculturist will offer guidance on this matter during the detailed design stage.
- 5.9. Hard surfacing in the form of new driveways associated to new dwellings are shown within the RPAs of high-quality (Category A) trees T9, T10, T13 and moderate-quality (Category B) tree T14. These trees are all protected by TPO. Again, these impacts could be addressed through minor amendments to the site layout design. The project Arboriculturist will offer guidance on this matter during the detailed design stage.
- 5.10. Dependent on the soil type and its current condition, it may be possible to address the construction of the driveway within the RPA of T9 with the use of a 'no dig' construction techniques and an agreed working methodology. However, the proportion of hard-surfacing shown within the RPAs of T10, T13 and T14 is significant and this should be addressed through a minor amendment to the design layout by possibly positioning adjacent dwellings further to the north. The project arboriculturist should be consulted as the design process progresses.
- 5.11. Footpaths are proposed within the RPAs of trees T2, T3, T5, T7, T9, T10, T11, T14, T16, T18, T20, T21 and tree groups G2, G9, G10, G12, G18 and G19. It should be noted that T7, T9, T10, T11, T14 and T15 are all protected through a TPO. Within these areas standard construction techniques could have an adverse impact to the functionality of the tree roots of these trees. A solution would be to utilise 'no dig' construction techniques which would involve a 3D cellular confinement system (dependent on soil type and condition) with a washed (no fines) angular fill. This would have to be installed in accordance with an Arboricultural Method Statement (AMS and manufacturers specification).
- 5.12. Within the south-east corner of the site the indicative layout shows a new pond is proposed. The indicative layout shows that this will be within the RPA of high quality (Category A) tree group G18. The siting of this pond could impact the overall health of these trees and therefore a minor amendment to the design layout should be implemented to position the pond further to the north and away from these trees.
- 5.13. At this stage, no detail has been provided relating to the detailed soft landscaping within the site. However, the indicative layout shows sufficient green space can be provided to allow new trees to be planted. When the soft landscaping details come forward, the project arboriculturist should make a full assessment to understand any potential impacts to retained trees and set out guidance to how they could be reduced.

6. Summary and conclusion

- 6.1. Subject to the advice contained within this report, the indicative development proposals are feasible from an arboricultural perspective, however, as the design develops it will be necessary to make minor amendments to the layout design to ensure the health and longevity of the retained trees is maintained.
- 6.2. The project arboriculturist should be involved with the future iterative design process to ensure the proposed layout responds appropriately to the identified arboricultural constraints. This will help ensure impacts to the important arboricultural features within the site preserved and retained within the proposed development.
- 6.3. When a layout design is finalised the project arboriculturist will need to compile a detailed Arboricultural Impact Assessment and associated Tree Protection Plan highlighting potential impacts and any mitigation required. This may include alternative construction techniques or direct protection measures that will be required to limit the arboricultural impacts to ensure the longevity of these trees.

Andrew Cunningham FdSc (Arb), M.ArborA
Arboriculturist



Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	15	Oak	M	9	255
T2	18	Pine (Black)	M	12.2	471
T3	16	Pine (Black)	M	8.8	241
T4	14	Oak (English)	EM	6	113
T5	16	Oak (English)	M	9.6	290
T6	17	Oak (English)	M	13.3	557
T7	15	Oak (English)	M	9.5	282
T8	11	Horse chestnut	EM	6	113
T9	18.5	Oak (English)	M	15	707
T10	15	Oak (English)	M	12.2	471
T11	14	Horse chestnut	M	9	255
T12	13	Ash (common)	EM	4.2	55
T13	19	Oak (English)	M	15	707
T14	20	Oak (English)	M	15	707
T15	17	Oak (English)	M	9.6	290
T16	17.5	Oak (English)	M	14.5	662
T17	15.5	Oak (English)	M	9.6	290
T18	16	Oak (English)	M	11.9	443
T19	12	Oak (English)	M	7.2	163
T20	18	Oak (English)	M	10.3	335
T21	14	Oak (English)	M	15	707
G1	3-4	Hawthorn, Blackthorn	M	1.3	5
G2	9-18	Oak, Holly, Beech, Hawthorn, Scots Pine	M	9.6	290
G3	5-8	Cypress, Ash, Hawthorn	EM	2.4	18
G4	8-9	Sycamore, Ash	EM	4.2	55
G5	2-6	Blackthorn, Hawthorn, Sycamore, Ash	M	2.4	18
G6	12-18	Pine (Black)	EM	6	113
G7	15-18	Sycamore, Oak	M	10.8	366
G8	6-10	Ash, Hawthorn, Hornbeam, Beech	EM	3.6	41
G9	2-18	Holly, Ash, Oak, Hazel, Hawthorn, Blackthorn, Laurel, Yew, Wellingtonia, Willow, Sycamore	M	14.4	652
G10	4-9	Sycamore, Oak, Hazel, Hawthorn	EM	2.8	24
G11	3-8	Sycamore, Oak, Hawthorn, Hazel, Holly	EM	3.6	41
G12	4-16	Scots Pine, Hazel, Ash, Oak, Sycamore	EM	6	113
G13	5-9	Hazel, Ash, Hawthorn	EM	3	28
G14	4-14	Hazel, Sycamore, Blackthorn, Ash	EM	4.8	72
G15	4-6	Ash, Hawthorn, Sycamore, Elder, Blackthorn	M	2.4	18
G16	3-4	Oak, Blackthorn, Field maple	SM	1	3
G17	3-9	Ash, Blackthorn, Willow	EM	2.4	18
G18	16-19	Oak	M	15	707
G19	3-17	Hornbeam, Holly, Hawthorn, Oak, Ash	M	9.6	290
H1	6	Oak, Hawthorn, Sycamore, Blackthorn, Ash	M	1.8	10

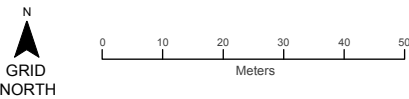
TS - 'Section 2'

KEY

- Category A Tree - High quality (Retention highly desirable)
- Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
- Category B Tree - Moderate quality (Retention desirable)
- Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
- Category C Tree - Low quality (May be retained but should not constrain development)
- Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
- Category U Tree - Very low quality (Mostly unsuitable for retention)
- Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
- Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
- Shrub mass/offside tree/out of scope (OOS)

Statutory Protection

Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception. The site may be within a designated Conservation Area which restricts tree works. Please see attached advice and guidance.



Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

PROJECT TITLE

Land to the east of Cuckfield (G.3423)

DRAWING TITLE

Tree Survey & Constraints Plan

SCALE

1:1250 @ A3

DRAWING NUMBER

BHA_688_01

DRAWN BY

SD

APPROVED BY

AC

REVISION

-

SHEET

-

DATE

18/11/2019

LAYOUT USED WITHIN DRAWING

n/a


CLIENT

Glenbeigh Developments Limited

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

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TREES

Ref	Species	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²	TPO?
T1	Oak	15	1	#	750	6-7-8-7	4.0	2.5	S	M	None	Mature roadside tree. Located off-site. Limited access. Ivy to stem. Canopy overhanging site.	Good	Fair	40	A2	9	255	No
T2	Pine (Black)	18	1	-	1020	5-6-9-6.5	5.0	5	S	M	None	Mature tree located on field edge, fire damage to stem and lower canopy, some dead limbs in lower canopy. Con-dominant stem at 5m. Remove lower dead branches. Some adaptive growth at union. Decayed fungal bracket at base to wound. Brace if retained.	Fair	Fair	10	C2	12	471	Yes
T3	Pine (Black)	16.0	1	-	730	4-6-7.5-6	4.0	6	S	M	None	Tree located on field edge, typical form, some dead lower limbs.	Good	Good	20	B1	8.8	241	Yes
T4	Oak (English)	14	1	#	500	6-6-6-6	3.0	2.5	W	EM	None	Off-site tree located within neighbouring property. Good form.	Good	Good	40	A2	6	113	No
T5	Oak (English)	16	1	-	800	7-6.5-4-8	4.0	4	S	M	None	Mature tree located on the edge of wooded area. Typical form, deadwood within canopy. Hung up limb within canopy. Adjacent to right of way. Remove hung up limb.	Good	Good	40	A2	10	290	Yes
T6	Oak (English)	17	1	-	1110	7-8-8-6.5	2.0	3	S	M	None	Mature tree located adjacent to right of way. Typical form. Some branch retrenchment within canopy, some failed and hung up limbs, fruiting bodies at base (fistulina?) notable tree. Prominent. Remove hung up limb. Detailed inspection	Fair	Fair	20	A3	13	557	Yes

BS5837
Category

Ref	Species	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m²	TPO?
T7	Oak (English)	15	1	-	790	8-7-4-5	4.0	4	W	M	None	Mature tree located adjacent to larger tree. Canopy weighted to the north. Hung up limb within canopy. Some canopy dieback. Remove hung up limb.	Fair	Fair	20	B2	10	282	Yes
T8	Horse chestnut	11.0	1	-	500	4.5-5-4.5-4	1.5	2	E	EM	None	Obvious individual tree located within boundary group. Co-dominant stem at 1m. Lesions to stem. Low bud density.	Fair	Fair	10	C1	6.0	113	Yes
T9	Oak (English)	19	1	-	1350	10.5-11-10-9.5	2.5	4	S	M	None	Very good specimen tree. Some staining to west side of stem from old branch wound. Typical deadwood throughout. Broad canopy. Remove deadwood throughout canopy. Notable tree.	Good	Good	40	A1	15	707	Yes
T10	Oak (English)	15.0	1	-	1020	10-7-10.5-8	2.0	2.5	N	M	None	Field edge individual tree. Typical form. Standing in water. Some retrenchment. Minor cavities at old branch wounds. Deadwood throughout. Remove deadwood.	Fair	Good	40	A2	12.2	471	Yes
T11	Horse chestnut	14.0	1	-	750	7-7.5-6-5.5	2.0	2	E	M	None	Large individual tree located on edge of group. Good form, lower than normal bud density. Minor lesions to stem. Minor deadwood within canopy.	Fair	Good	20	B1	9.0	255	No
T12	Ash (common)	13.0	1	#	350	4-4-4.5-4	2.5	3	SE	EM	None	Tree located within larger linear group. No access to base. Good form. Good vigour.	Good	Good	20	B2	4.2	55	No
T13	Oak (English)	19.0	1	-	1600	12-12-11.5-11	3.0	4	S	M	None	Large tree contained within central linear group. Broad canopy. Numerous branch failures, some hung up within canopy. Good habitat. Prominent tree adjacent to public right of way. Remove hung up limbs/deadwood.	Good	Fair	40	A3	15.0	707	Yes

Ref	Species	Height (m)	No. of Stems	Est diam?	Calc. / Actual Stem Dia. (mm)	Crown radii (m) N-E-S-W	Avg. Canopy Height (m)	1st branch ht (m)	1st branch dir.	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	RPA m ²	TPO?
T14	Oak (English)	20.0	1	-	1390	12-10-8-8	3.5	2.5	E	M	None	Large tree forms part of linear group. Historic large limb failure on south side of stem, cavity forming with bark damage from ground level to 3m. Heartwood exposed. Canopy weighted to the north. Consider detailed inspection if land use changes. Prominent and good habitat.	Good	Fair	20	B3	15.0	707	Yes
T15	Oak (English)	17.0	1	#	800	8-7-8-8	4.0	3	N	M	None	Mature tree located on edge of site (maybe off-site). No access due to heavy bramble surrounding. Prominent tree.	Good	Good	40	A2	9.6	290	Yes
T16	Oak (English)	17.5	1	-	1210	9-9-7-8	2.0	2.5	SW	M	None	Mature tree located close to southern boundary. Good form. Some adaptive growth at base. Minor deadwood throughout.	Good	Good	40	A2	14.5	662	Yes
T17	Oak (English)	15.5	1	#	800	7-6-8-6	2.0	2.5	W	M	None	Off-site tree located close to boundary. Suppressed form from neighbouring on-site tree. Limited access to base.	Good	Good	40	A2	9.6	290	No
T18	Oak (English)	16.0	1	-	990	10-7-10-8	2.0	3	S	M	None	Mature tree located close to the southern boundary, good form. Some deadwood throughout canopy. Remove deadwood if land use changes.	Good	Fair	40	A2	11.9	443	Yes
T19	Oak (English)	12.0	1	#	600	2-2-2-2	3.0	2	W	M	None	Standing dead tree. No access due to bramble.	Dead	Dead	<10	U	7.2	163	No
T20	Oak (English)	18.0	1	-	860	7-6-6-7	2.0	4	W	M	None	Tree plotted on topo. Forms part of larger group. Suppressed by neighbouring trees.	Good	Fair	40	A2	10.3	335	No
T21	Oak (English)	14.0	1	-	1340	5-3-2.5-8	3.0	2.5	W	M	None	Heavily burred mature tree on edge of wooded area, potential old pollard. Typical deadwood within upper canopy.	Good	Good	40	A2	15.0	707	No

GROUPS

Ref	Species	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G1	Hawthorn, Blackthorn	3-4	50	-	100	1	0.1	M	None	Mostly blackthorn thicket. Inaccessible.	Fair	Fair	10	C2	1.3	No
G2	Oak, Holly, Beech, Hawthorn, Scots Pine	9-18	30	-	800	8	3.0	M	None	Off-site group circumnavigating pond, good collective form although trees drawn up in form. Prominent within landscape.	Good	Good	40	A2	9.6	No
G3	Cypress, Ash, Hawthorn	5-8	10	#	200	3	1.0	EM	None	Off-site linear group, no access to stem.	Good	Fair	10	C2	2.4	No
G4	Sycamore, Ash	8-9	2	-	350	4	2.0	EM	None	Two similar sized trees located within boundary group. Self-set.	Good	Good	20	B2	4.2	No
G5	Blackthorn, Hawthorn, Sycamore, Ash	2-6	100	#	200	3	0.0	M	None	Thicket like linear group. Spreading form, some self-set Ash/Sycamore contained within. Limited access.	Good	Good	10	C2	2.4	No
G6	Pine (Black)	12-16	5	#	500	5	3.0	EM	None	Circular group located within thicket. Good collective form. One tree failed at 7m. No access to base due to understorey.	Good	Good	20	B2	6.0	Yes
G7	Sycamore, Oak,	15-18	4	#	900	8	3.0	M	None	Linear group of off-site trees located within neighbouring property. Good collective form although drawn up. No access-measurements estimated.	Good	Good	40	A2	10.8	No
G8	Ash, Hawthorn, Hornbeam, Beech	6-10	5	-	300	5	1.5	EM	None	Two obvious groups straddling site boundary, suppressed form. Barb-wire damage to some stems.	Good	Fair	20	B2	3.6	No
G9	Holly, Ash, Oak, Hazel, Hawthorn, Blackthorn, Laurel, Yew, Wellingtonia, Willow, Sycamore,	2-18	100	#	1200	8	2.0	M	None	Substantial Linear group of off-site trees. Not recorded on topo. Good Arboricultural feature. Some Ash in decline. Remove declining Ash if land use changes.	Good	Good	40	A2	14.4	No
G10	Sycamore, Oak, Hazel, Hawthorn	4-9	10	-	230	3	2.0	EM	None	Linear group of trees adjacent to public right of way. Better collectively. Overrun with bramble.	Good	Good	20	B2	2.8	No
G11	Sycamore, Oak, Hawthorn, Hazel, Holly	3-8	20	-	300	3	1.0	EM	None	Unmanaged linear group. Overrun with bramble.	Good	Good	20	C2	3.6	No

Ref	Species	Height range (m)	No. of trees	Est diam?	Max stem diam (mm)	Av. Crown radius (m)	Avg. Canopy Height (m)	Life Stage	Special importance	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)	TPO?
G12	Scots Pine, Hazel, Ash, Oak, Sycamore	4-16	20	#	500	3	1.0	EM	None	Group of mostly off-site trees. Dominated by larger Ash and Scots Pine. No access - measurements estimated. One Scots Pine with top failed.	Good	Good	20	B2	6.0	No
G13	Hazel, Ash, Hawthorn	5-9	5	#	250	3	2.0	EM	None	Small group of trees on edge of site. No access due to bramble, not on topo.	Good	Good	20	B2	3.0	No
G14	Hazel, Sycamore, Blackthorn, Ash	4-14	20	-	400	4	1.0	EM	None	Small group of trees on edge of site. Better collectively. Some ash with canker. Drawn up form. Not on topo.	Fair	Good	20	B2	4.8	No
G15	Ash, Hawthorn, Sycamore, Elder, Blackthorn	4-6	10	-	200	2	1.0	M	None	Linear boundary group. Better collectively.	Good	Good	20	B2	2.4	No
G16	Oak, Blackthorn, Field maple	3-4	10	#	75	2	1.0	SM	None	Small group of self-set trees. No access due to bramble.	Good	Good	10	C2	1.0	No
G17	Ash, Blackthorn, Willow	3-9	20	#	200	3	1.0	EM	None	Linear group of trees along southern boundary. Some larger self-set ash trees located within. Better collectively. Access limited by bramble.	Good	Good	20	B2	2.4	No
G18	Oak	16-19	2	#	1400	11	2.0	M	None	Two similar size trees located off-site but with 11m overhang in to site. Cohesive Canopies. Significant Arboricultural feature.	Good	Good	40	A2	15.0	No
G19	Hornbeam, Holly, Hawthorn, Oak, Ash	3-17	30	#	800	5	1.0	M	None	Wooded group situated adjacent to the southern boundary. Limited access.	Good	Good	40	A2	9.6	No

HEDGES

Ref	Species	Av. Height (m)	Av. width (m)	Av. Stem diam (mm)	Avg. Canopy Height (m)	Life Stage	General Observations	Health & vitality	Struct. cond.	Estimated Remaining Contribution (Years)	BS5837 Category	RPA Radius (m)
H1	Oak, Hawthorn, Sycamore, Blackthorn, Ash	6	4	150	0.1	M	Unmanaged boundary hedgerow with self-set trees contained within to 10m. Gaps in places.	Good	Good	20	B2	1.8

SITE NAME



PHOTO 1: Looking north at low to moderate-quality TPO'd trees T2 (central frame) and T3 (right of centre). T2 had fire damage to its lower canopy.



PHOTO 2: Looking west from the east of high-quality T10. Moderate-quality tree group G6 right of centre. (both items are covered by a Tree Preservation Order (TPO)).



PHOTO 3: Looking east to the south of G11. Moderate-quality Oak tree T14 (left of centre) and high-quality Oak tree T13 (central frame).



PHOTO 4: Large failed union to Oak T14. This tree has been downgraded to moderate-quality due to the failure but does offer good wildlife habitat.



PHOTO 5: looking south-west towards southern boundary. Category U dead Oak tree (far left) and high-quality Oak trees T18 and T19 (central frame).



PHOTO 6: Looking north along moderate to high-quality tree groups G7 and G8. G7 is a significant arboricultural feature of the eastern boundary.

- The tree survey was carried out with reference to the methodology set out in BS5837:2012 ‘Trees in relation to design, demolition and construction – Recommendations’.
- Trees were surveyed individually or as groups where it was considered that they had grown together to form cohesive arboricultural features either aerodynamically (trees that provide companion shelter), visually (eg avenues or screens) or culturally (including for biodiversity). However, where it was considered that there was an arboricultural need to differentiate between attributes trees within groups/woodlands were also surveyed as individuals
- The full tree survey findings are recorded in the following tree survey schedule.
- Within the tree survey schedule, each surveyed TREE (T), GROUP (G), HEDGEROW (H), WOODLAND (W) or SHRUB MASS on or adjacent to the site is given a reference number which refers to its position on the tree survey and constraints plan.
- TREE SPECIES are listed by common name.

The **DIMENSIONS** taken are:

- STEM-No. Indicates the number of main stems (i.e. whether the trunk divides at or below 1.5m; (Used in the calculation of RPA.) “m-s” = Multi-stemmed.
- STEM DIAMETER (in millimetres), obtained from the girth measured at approx.1.5m. For trees with 2 to 5 sub-stems, a notional figure is derived from the sum of their cross-sectional areas. For multi-stemmed trees the notional diameter may be estimated on the basis of the average stem size x the number of stems. (A notional diameter may be estimated where measurement is not possible.)
- HEIGHT, are measured in metres. They are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- The CROWN SPREAD are taken at the four cardinal points to derive an accurate representation of the tree crown. They are recorded up to the nearest half metre for dimensions up to 10m and to up the nearest whole metre for dimensions over 10m.
- CROWN CLEARANCES are expressed both as existing height above ground level of first significant branch along with its direction of growth (eg 2.5m-N), and also in terms of the overall canopy. Measurements are recorded to the nearest half metre for dimensions up to 10m and to the nearest whole metre for dimensions over 10m.
- ESTIMATES. Where any measurement has had to be estimated, due to inaccessibility for example, this is indicated by a “#” suffix to the measurement as shown in the tree survey schedule.

LIFE STAGE is defined as follows:

- Y Young: normally stake dependent, establishing trees. Should be growing fast, usually primarily increasing in height more than spread, but as yet making limited impact upon the landscape.
- SM Semi-mature: Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment. Semi-Mature (still capable of being transplanted without preparation, up to 30cm girth and not yet sexually mature).

- EM Early-mature: Not yet having reached 75% of expected mature size. Established young trees, normally of good vigour and still increasing in height, but beginning to spread laterally. Beginning to make an impact upon the local landscape & environment.
- M Mature: Well-established trees, still growing with some vigour, but tending to fill out and increase spread. Bark may be beginning to crack & fissure. In the middle half of their safe, useful life expectancies.
- LM Late-Mature: In full maturity but possibly beyond mature and in a state of natural decline). Still retaining some vigour but any growth is slowing.
- A Ancient: A tree that has passed beyond maturity and is old./aged compared with other trees of the same species. Typically having a very wide trunk and a small canopy.

PHYSIOLOGICAL CONDITION (HEALTH & VITALITY):

Essentially a snapshot of the general health of the tree based upon its general appearance, its apparent vigour and the presence or absence of symptoms associated with poor health, physiological stress etc. (Fungal infections may be recorded here but decay giving rise to structural weakness would be recorded under ‘Structural Condition’ – see next parameter):

- Good: No significant health issues.
- Fair: indications of slight stress or minor disease (e.g. the presence of minor dieback/deadwood or of epicormic shoot growth)
- Poor: Significant stress or disease noted; larger areas of dieback than above
- Dead: (or Moribund)

STRUCTURAL CONDITION:

Defects affecting the structural stability of the tree, including decay, significant dead wood, root-plate instability or significant damage to structural roots, weak forks (e.g. those where bark is included between the members) etc. Classified as:

- Good: No obvious structural defects: basically sound
- Fair: Minor, potential or incipient defects
- Poor: Significant defect(s) likely to lead to actual failure in the medium to long-term
- Dead: (or Moribund)

REMAINING USEFUL LIFE EXPECTANCY:

An estimate of the length of time in years that a tree might be expected to continue to make a useful contribution to the locality at an acceptable level of risk (based on an assumption of continued routine maintenance)

- less than 10 years
- 10+ years
- 20+ years
- 40+ years



Tree No	Ht (m)	Species	Life Stage	RPA Radius (m)	RPA Area (m2)
T1	15	Oak	M	9	255
T2	18	Pine (Black)	M	12.2	471
T3	16	Pine (Black)	M	8.8	241
T4	14	Oak (English)	EM	6	113
T5	16	Oak (English)	M	9.6	290
T6	17	Oak (English)	M	13.3	557
T7	15	Oak (English)	M	9.5	282
T8	11	Horse chestnut	EM	6	113
T9	18.5	Oak (English)	M	15	707
T10	15	Oak (English)	M	12.2	471
T11	14	Horse chestnut	M	9	255
T12	13	Ash (common)	EM	4.2	55
T13	19	Oak (English)	M	15	707
T14	20	Oak (English)	M	15	707
T15	17	Oak (English)	M	9.6	290
T16	17.5	Oak (English)	M	14.5	662
T17	15.5	Oak (English)	M	9.6	290
T18	16	Oak (English)	M	11.9	443
T19	12	Oak (English)	M	7.2	163
T20	18	Oak (English)	M	10.3	335
T21	14	Oak (English)	M	15	707
G1	3-4	Hawthorn, Blackthorn	M	1.3	5
G2	9-18	Oak, Holly, Beech, Hawthorn, Scots Pine	M	9.6	290
G3	5-8	Cypress, Ash, Hawthorn	EM	2.4	18
G4	6-9	Sycamore, Ash	EM	4.2	55
G5	2-6	Blackthorn, Hawthorn, Sycamore, Ash	M	2.4	18
G6	12-18	Pine (Black)	EM	6	113
G7	15-18	Sycamore, Oak	M	10.8	366
G8	6-10	Ash, Hawthorn, Hornbeam, Beech	EM	3.6	41
G9	2-18	Holly, Ash, Oak, Hazel, Hawthorn, Blackthorn, Laurel, Yew, Wellingtonia, Willow, Sycamore,	M	14.4	652
G10	4-9	Sycamore, Oak, Hazel, Hawthorn	EM	2.8	24
G11	3-8	Sycamore, Oak, Hawthorn, Hazel, Holly	EM	3.6	41
G12	4-16	Scots Pine, Hazel, Ash, Oak, Sycamore	EM	6	113
G13	5-9	Hazel, Ash, Hawthorn	EM	3	28
G14	4-14	Hazel, Sycamore, Blackthorn, Ash	EM	4.8	72
G15	4-6	Ash, Hawthorn, Sycamore, Elder, Blackthorn	M	2.4	18
G16	3-4	Oak, Blackthorn, Field maple	SM	1	3
G17	3-9	Ash, Blackthorn, Willow	EM	2.4	18
G18	16-19	Oak	M	15	707
G19	3-17	Hornbeam, Holly, Hawthorn, Oak, Ash	M	9.6	290
H1	6	Oak, Hawthorn, Sycamore, Blackthorn, Ash	M	1.8	10

- KEY**
 - Category A Tree - High quality (Retention highly desirable)
 - Category A - Hedgerow, Group, Woodland - High quality (Retention highly desirable)
 - Category B Tree - Moderate quality (Retention desirable)
 - Category B - Hedgerow, Group, Woodland - Moderate quality (Retention desirable)
 - Category C Tree - Low quality (May be retained but should not constrain development)
 - Category C - Hedgerow, Group, Woodland - Low quality (May be retained but should not constrain development)
 - Category U Tree - Very low quality (Mostly unsuitable for retention)
 - Category U - Hedgerow, Group, Woodland - Very low quality (Mostly unsuitable for retention)
 - Root Protection Area (RPA) - Layout design tool indicating the minimum area around a tree deemed to contain sufficient roots and soil volume to maintain the tree's viability
 - Shrub mass/offsite tree/out of scope (OOS)
- Statutory Protection**
 - Tree Preservation Order (TPO): Trees under statutory protection. No tree works to be undertaken without specific consent or by relevant exception
 - Indication of proposed tree removals to implement development proposals.
 - Potential for utilising 'no dig' construction techniques. A cellular confinement system with an angular stone fill (no fines) could be used.

TRR - 'Section 3'

PROJECT TITLE

Land to the east of Cuckfield (G.3423)

DRAWING TITLE

Indicative Tree Retention & Removal Plan

SCALE

1:1250 @ A3

DRAWING NUMBER

BHA_688_02

DRAWN BY

SD

APPROVED BY

AC

REVISION

-

SHEET

-

DATE

19/11/2019

LAYOUT USED WITHIN DRAWING

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CLIENT

Glenbeigh Developments Limited

COORDINATE SYSTEM / DATUM

British National Grid / Newlyn Datum (AOD)

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Note: The original of this drawing was produced in colour – a monochrome copy should not be relied upon. This drawing should be interpreted with reference to the accompanying tree schedule and written advice

SPECIAL IMPORTANCE:

Trees that are particularly notable as high value trees such as ancient trees/woodland, or veteran trees. Such trees may be regarded as the principal arboricultural features of a site, and pose a significant constraint to potential development.

An ancient tree is one that has passed beyond maturity and is very old compared with other trees of the same species. Very few trees reach the ancient life-stage. Veteran trees are often very old, but not necessarily so; they may be regarded as 'survivors' that have developed some of the characteristic features of an ancient tree but have not necessarily lived as long. All ancient trees are veterans but not all veteran trees are ancient.

QUALITY CATEGORY:

Trees are classed as category U, A, B or C, based on criteria given in BS5837:2012; summary definitions as follows (see BS5837 for further details). Categories A, B and C are further characterised by the use of sub-categories, which attempt to identify what aspect of the tree is the main source of its perceived value:

- (1) arboricultural qualities
- (2) landscape qualities, and
- (3) cultural, historic or ecological/conservation qualities.

Examples of these qualities for each of the three categories are given below, although these are indicative only.

Note: This is NOT a health and safety classification; the classification does not take into account any requirement for remedial tree care or ongoing maintenance apart from that which may affect the trees' general suitability for retention.

CATEGORY U: UNSUITABLE:

Trees likely to prove to be unsuitable for retention for longer than 10 years should any significant increase in site usage arise as a result of development.

E.g. dead or moribund trees; those at risk of collapse or in terminal decline; trees that will be left unstable by other essential works such as the removal of nearby category U trees; trees infected by pathogens that could materially affect other trees; low quality trees that are suppressing better specimens

(Category U trees may have conservation values that it might be desirable to preserve.

It may also include trees that should be removed irrespective of any development proposals.)

CATEGORY A: HIGH QUALITY:

Trees or groups whose retention should be given a particularly high priority within the design process. Normally with an expected useful life expectancy of at least 40 years.

- A1: Notably fine specimens; rare or unusual specimens; essential component trees within groups, semi-formal or formal plantings (e.g. dominant trees within an avenue etc.)
- A2: Trees, groups or woodlands of particular visual importance as landscape features.
- A3: Trees, groups or woodlands of particular significance by virtue of their conservation, historical, commemorative or other value (e.g. veteran trees or wood pasture.)

CATEGORY B: MODERATE QUALITY:

Trees or groups of some importance with a likely useful life expectancy in excess of 20 years. Their retention would be highly desirable; selective removal of certain individuals may be acceptable, but only after full consideration of all alternative courses of action.

- B1: Fair quality but not exceptional; good specimens showing some impairment (e.g. remediable defects, minor storm damage or poor past management.)
- B2: Acceptable trees situated such as to have little visual impact within the wider locality. Also numbers of trees, perhaps in groups or woodlands, whose value as landscape features is greater collectively than would warrant as individuals (such that the selective removal of an individual would not impact greatly upon the trees' overall, collective value).
- B3: Trees, groups or woodlands with clearly identifiable conservation or other cultural benefits.

CATEGORY C: MINOR VALUE:

Trees or groups of rather low quality, although potentially capable of retention for at least approx. 10 years. Also small trees with stems below 15cm diameter.

Potentially retainable, but not of sufficient value to be regarded as a significant planning constraint.

- C1: Unremarkable trees of very limited merit or of significantly impaired condition.
- C2: Trees offering only low or short-term landscape benefits; also secondary specimens within groups or woodlands whose loss would not significantly diminish their landscape value.
- C3: Trees with extremely limited conservation or other cultural benefit.

ROOT PROTECTION AREA (RPA):

These are normally represented as a circle centred on the base of each tree stem with a radius of 12 times stem diameter measured at 1.5m above ground level, but the shape of the RPA may be altered where site conditions dictate that there are sound reasons to do so.

THE IMPORTANCE OF TREES

Wider benefits:

There is a growing body of evidence that trees bring a wide range of benefits to the places people live.

Some *Economic* benefits of trees include:

- Trees can increase property values
- As trees grow larger, the lift they give to property values grows proportionately
- They can improve the environmental performance of buildings by reducing heating and cooling costs, thereby cutting bills
- Mature landscapes with trees can be worth more as development sites
- Trees create a positive perception of a place for potential property buyers
- Urban trees improve the health of local populations, reducing healthcare costs

Some *Social* benefits of trees include:

- Trees help create a sense of place and local identity
- They benefit communities by increasing pride in the local area
- They can create focal points and landmarks
- They have a positive impact on people's physical and mental health
- They can have a positive impact on crime reduction

Some *Environmental* benefits of trees include:

- Urban trees reduce the 'urban heat island effect' of localised temperature extremes
- They provide shade, making streets and buildings cooler in summer
- They help remove dust and particulates from the air
- They help to reduce traffic noise by absorbing and deflecting sound
- They help to reduce wind speeds
- By providing food and shelter for wildlife they help increase biodiversity
- They can reduce the effects of flash flooding by slowing the rate at which rainfall reaches the ground
- They can help remediate contaminated soil

On new development sites:

Trees bring many benefits to new development. Where retained successfully they can form important and sustainable elements of green infrastructure, contribute to urban cooling and reduce energy demands in buildings. Their importance is acknowledged in relation to adaptation to the effects of climate change. Other benefits brought by trees include:

- increasing property values;
- visual amenity
- softening, complementing and adding maturity to built form
- displaying seasonal change
- increasing wildlife opportunities in built-up areas
- contributing to screening and shade
- reducing wind speed and turbulence

NATIONAL PLANNING POLICY

The National Planning Policy Framework 2019 (NPPF paragraph 175) states that:

'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'.

In this respect the following definitions apply:

'Ancient woodland: An area that has been wooded continuously since at least 1600 AD. It includes ancient semi-natural woodland and plantations on ancient woodland sites (PAWS)', and an

'Ancient or veteran tree: A tree which, because of its age, size and condition, is of exceptional biodiversity, cultural or heritage value. All ancient trees are veteran trees. Not all veteran trees are old enough to be ancient, but are old relative to other trees of the same species. Very few trees of any species reach the ancient life-stage.'

Note: Further information from the National Planning Policy Guidance Suite and Standing Advice is provided in the design guidance section.

STATUTORY CONTROLS

Statutory tree protection

Works to trees which are covered by Tree Preservation Orders (TPOs) or are within a Conservation Area (CA) require permission or consent from the Local Planning Authority. Where information is available on any Statutory designations such as this they are identified within the summary table in Section 1 and on the Tree Survey and Constraints Plan at Section 2.

Notwithstanding specific exceptions and in general terms, a TPO prevents the cutting down, uprooting, topping, lopping, wilful damage or wilful destruction of protected trees or woodlands without the prior written consent of the LPA.

Penalties for contravention of a TPO tend to reflect the extent of damage caused but can, in the event of a tree being destroyed, result in a fine of up to £20,000 if convicted in a Magistrates' Court, or an unlimited fine if the matter is determined by the Crown Court.

Similarly, and again notwithstanding specific exceptions, it is an offence to carry out any works to a tree in a Conservation Area with a trunk diameter greater than 75mm diameter at 1.5 height without having first provided the LPA with 6 weeks written notification of intent to carry out the works.

On many non-residential sites (excluding specific exemptions) there is also a statutory restriction relating to tree felling that relates to quantities of timber that can be removed within set time periods. In basic terms, it is an offence to remove more than 5 cubic metres of timber in any one calendar quarter without having first obtained a felling licence from the Forestry Commission.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with the statutory controls outlined.

Statutory Wildlife Protection

Although preliminary visual checks from ground level of likely wildlife habitats are made at the time of surveying, detailed ecological assessments of wildlife habitats are not made by the arboriculturist and fall outside of the scope for this report.

Trees which contain holes, splits, cracks and cavities could potentially provide a habitat for protected species such as bats in addition to birds and small mammals. It is advised that in some instances specialist ecological advice may be required. This may result in tree works being carried out following a

detailed climbing inspection to the tree to ensure that protected species or their nests/roosts are not disturbed. If any are found, the site manager, site owner or consulting arboriculturist should be informed and appropriate action taken as recommended by the appointed Ecologist or the relevant Statutory Nature Conservation Organisation (SNCO): Natural England, Scottish Natural Heritage or Natural Resources Wales.

It is advised that tree/hedgerow works are carried out with the understanding that birds will generally nest in trees, hedges and shrubs between March and August. This time period only provides an indication of likely nesting times and as such diligence is required when undertaking tree works at all times.

Irrespective of the time of year, and other than any actions approved under General Licence, it is an offence to intentionally kill, injure or take any wild bird or to intentionally take, damage or destroy the nest or eggs of any wild bird. Ideally, tree operations should be avoided during the likely bird nesting period. However, any tree works should always only be carried out following a preliminary visual check of the vegetation.

For information, the Wildlife and Countryside Act 1981 (as amended), The Countryside and Rights of Way Act 2000 (as amended) and the Conservation of Habitat and Species Regulations 2010, form the basis of the statutory legislation for flora and fauna in England and Wales. A different legislative framework applies in Scotland and Northern Ireland.

Any proposed tree works that are planned to be carried out on site must be carried out in accordance with any relevant statutory controls, outlined above.