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WOODCROFT FARM, WECOCK

Access Road Extended Phase 1 Habitat Survey
Grainger Plc

31/05/2013

Your ref: Woodcroft Farm
Our ref: 22941



31 May 2013

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Dear John,

Woodcroft Farm Access Road

An extended Phase 1 habitat survey and ground level inspection of trees for features suitable to support roosting bats has been completed of land within the Woodcroft Farm Access Road redline boundary. The survey was completed by Rosie Hall MCIEEM (Senior Ecologist for WSPE) on the 23rd May 2013; within the optimal season for extended Phase 1 habitat survey.

Methods follow those completed for the main site (see WSPE, 2013); the survey was extended to include a ground level inspection of mature trees present to record their potential to support roosting bats. The categorisation of roost potential follows current good practice guidelines (Hundt, 2012), please note that numbered categories differ from those used in 2011 (see WSPE, 2013) reflecting the updated good practice guidelines however the terms high, low/moderate and negligible potential are used consistently. The evaluation of habitats present follows methods outlined in the accompanying ecological assessment report.

Extended Phase 1 Habitat Survey Results

Broadleaved semi-natural woodland A1.1.1

Broadleaved semi-natural woodland lies to the west and south of the school grounds. This is dominated by semi-mature oak *Quercus robur* and ash *Fraxinus excelsior*, with some willow *Salix* spp. present. The understorey comprises scrub to the west of the school grounds, including hawthorn *Crataegus mongyna*, bramble *Rubus fruticosus* agg. and blackthorn *Prunus spinosa*, with an open grassed area beneath trees on the road verge to the south. Species present here include those listed under amenity grassland below, plus the following additional species; lesser celandine *Ranunculus ficaria*, bluebell *Hyacinthoides non-scripta*¹, wood anemone *Anemone nemorosa*, wood sedge *Carex sylvatica* and early dog violet *Viola reichenbachiana*.

The woodland includes trees suitable to support roosting bats (see Appendix A for full details) and nesting birds. It also provides suitable habitat for dormouse, though surveys (WSP, 2012) have concluded this species is likely absent. This habitat is considered of Site value.

Dense scrub A2.1

A narrow strip of dense scrub runs along the woodland boundary, inside the school grounds. Species present include hawthorn, bramble, blackthorn, field rose *Rosa arvensis*, honeysuckle *Lonicera periclymenum* and gorse *Ulex europaea*. Ground flora along these edges includes ground ivy *Glechoma hederaceae*, curled and broadleaf dock *Rumex crispus* and *R. obtusifolius* and cuckoopint *Arum maculatum*. This habitat is limited in extent and in conjunction with the adjoining woodland provides suitable habitat for dormouse, though surveys (WSP, 2012) have concluded this species is likely absent. This habitat is considered of up to Site value.

¹ The bluebells present have native characters, including a one sided, drooping panicle.

Poor semi-improved grassland B6

An area to the southwest of the playing field has been allowed to grow long and is developing a low tussock structure, species present include those listed under amenity grassland below and Yorkshire fog *Holcus lanatus*, meadow foxtail *Alopecurus pratensis*, red fescue *Festuca rubra* and self-heal *Prunella vulgaris* with occasional cuckooflower *Cardamine pratensis* and jointed rush *Juncus articulatus*.

This area is suitable to support widespread reptiles such as slow worm, which have previously been recorded in low numbers within the school grounds (HBC, pers. comm). Though small in area, due to the suitability for and confirmed presence of slow worm, a legally protected species, this habitat is considered of Site value.

Amenity Grassland J2

The school playing field is dominated by amenity grassland, which is also present on the existing road verge. Species present include daisy *Bellis perennis*, white clover *Trifolium repens*, ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg., perennial rye grass *Lolium perenne* and creeping buttercup *Ranunculus repens*. Yarrow *Achillea millefolium* and creeping cinquefoil *Potentilla reptans* are also present on the road verge. This is close mown and of negligible ecological value.

Native species rich hedgerow with trees J3.1

Two native species rich hedgerows² with trees lie on the northern extent of the Site access road. These lines of mature trees are not managed as typical hedgerows, though that to the north is trimmed along the northern side where it abuts the Woodcroft farm access road. The northern hedgerow comprises predominantly hawthorn interspersed with, mature oak standards; whilst the southern hedgerow is a line of mature trees, primarily oak, which have not been managed as a hedge. An ivy dominated ground flora is present, with bare ground on the bridleway itself. Whilst this vegetation could also be classified as a narrow strip of broadleaved woodland along the bridleway, hedgerow is considered more appropriate, in part due to the narrow width of the vegetation either side of the bridleway and in part due to the appearance of the most northerly hedgerow.

Hardstanding

Tarmac paths run across the school field to the gate and from the road to the south. The path within the school grounds is lit. This is of negligible ecological value.

Fence J4

The school premises are bounded by a perimeter fence. This is of negligible ecological value.

Recommendations

Where trees with potential to support roosting bats lie on the access road route and therefore cannot be retained within the Proposed Development, further survey is recommended in order to confirm presence or likely absence of roosts. Recommendations specific to individual trees are described within Table 1 below.

Table 1 - Results and recommendations where retention of trees is not possible

BCT Category	Definition (Hundt, 2012)	Potential (for comparison with trees surveyed on the main site)	Trees	Recommendations
Known or confirmed roost	n/a	n/a	None	N/A at present.
1*	Trees with multiple highly suitable features capable of	High	AR20, AR27	It is recommended an at height inspection of the features identified is completed; to confirm whether

² The definition of hedgerow used here is 'a line of woody vegetation more than 20m long and less than 5m wide'.

	supporting larger roosts.			they are in fact suitable for bats, or whether the trees should be downgraded to category 2 and soft felled.
1	Trees with definite potential, supporting fewer suitable features than Category 1* trees or with potential for use by single bats.	Low/Moderate	AR9, AR11, AR13, AR15	If features are suitable it may then be necessary to complete emergence and re-entry surveys prior to felling or arboricultural works. Should further survey identify a bat roost where retention is not possible, a European Protected Species (EPS) licence must be obtained prior to felling.
2	Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices begin found; or the tree supports some features which may have limited potential to support bats.	Low (A precautionary approach has been taken where ivy cover prevented full visual assessment of a tree)	AR7, AR12, AR18, AR21, AR22, AR23, AR24, AR25, AR26, AR34	Where felling or works to these trees are unavoidable it is recommended the trees or limbs to be removed are soft felled, taking reasonable avoidance measures. This technique comprises using lowering and cushioning techniques to reduce the impact of felling limbs where there is a low risk of bats being present within unidentified cavities. An arborist should inspect the tree at height prior to removing limbs, and should any cavities be identified further ecological advice should be sought prior to felling.
3	Trees with no potential to support bats.	Negligible	AR1, AR2, AR3, AR4, AR5, AR6, AR8, AR9a, AR10, AR10a, AR14, AR14a, AR16, AR17, AR19, AR28, AR29, AR30, AR31, AR32, AR33	No further recommendations with regards to bats.

Further to the above, where trees are retained, the following measures are recommended:

- Avoidance of lighting of Category 1*, 1 or 2 trees; both during construction and once the Proposed Development is operational;
- Retention of connecting unlit vegetation between trees across the Site and leading to adjoining habitat areas, both during construction and operation; and
- Avoidance of noisy and high vibration activities in the vicinity of these trees; and where unavoidable, minimisation of noise volume and duration.

In addition, as the access road affects habitat suitable for widespread nesting birds and slow worm it is recommended that the following precautionary site clearance methods are implemented under an ecological watching brief to avoid effects upon these species:

- Clearance of above ground woody vegetation outside nesting bird season (March to August inclusive)
- Creation of replacement long grassland habitat on access road verges and incorporation of suitable refugia within this habitat (such as log piles);
- Gradual removal of grass, ruderal and scrub vegetation below 300mm during the reptile active season under supervision of a suitably qualified ecologist. This would enable any reptiles present to be captured and released within adjoining retained habitat and newly created verges.

Please do not hesitate to contact me should further clarification or advice be required.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'Rosie Hall'.

Rosie Hall
Senior Ecologist

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Figure 1 – Site Location Plan

Figure 2 - Access Road: Phase 1 Habitat Plan

Figure 3 – Access Road: Results of Ground Level Tree Inspection

Appendix A – Ground level tree inspection results

Appendix B – Photographs

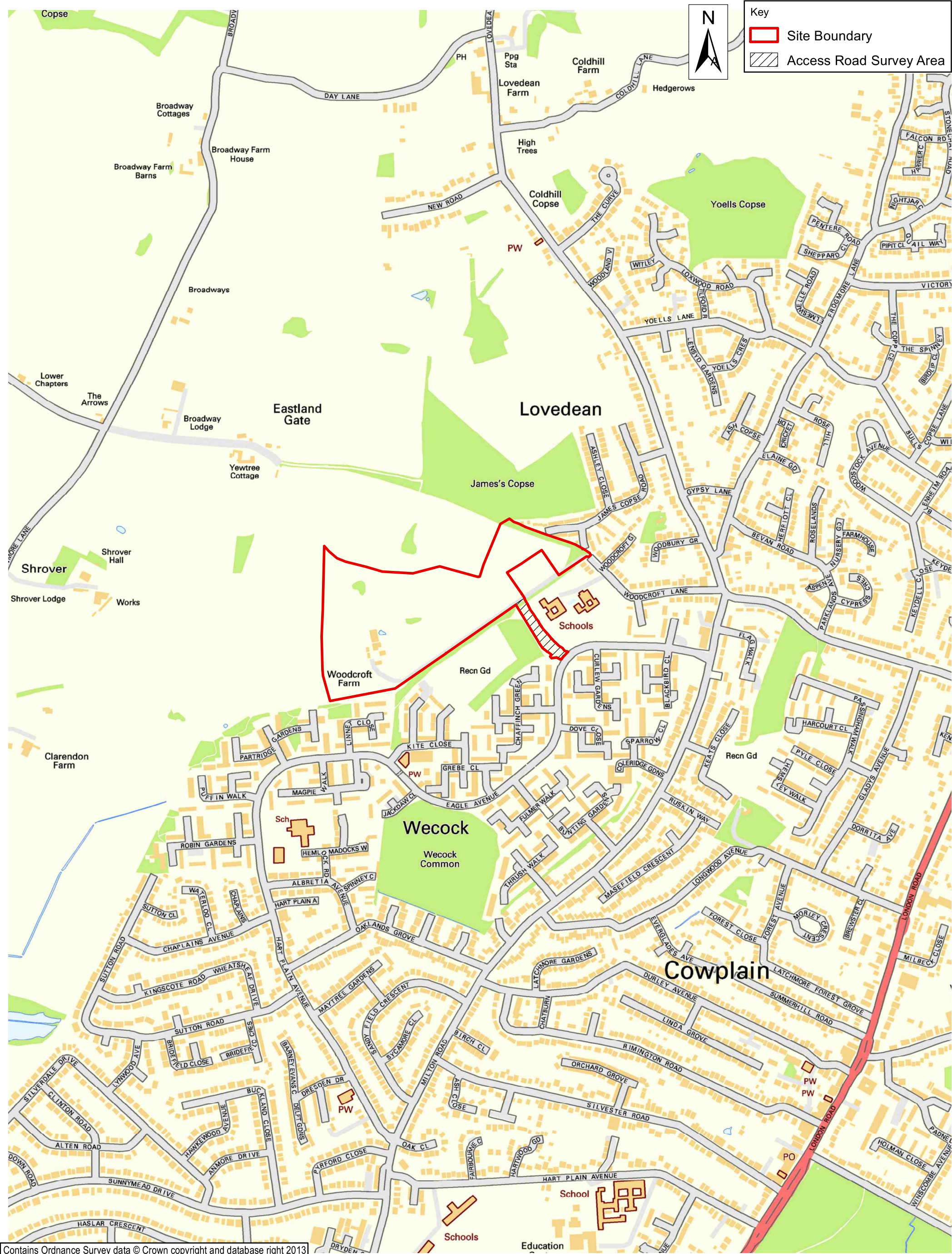
References:

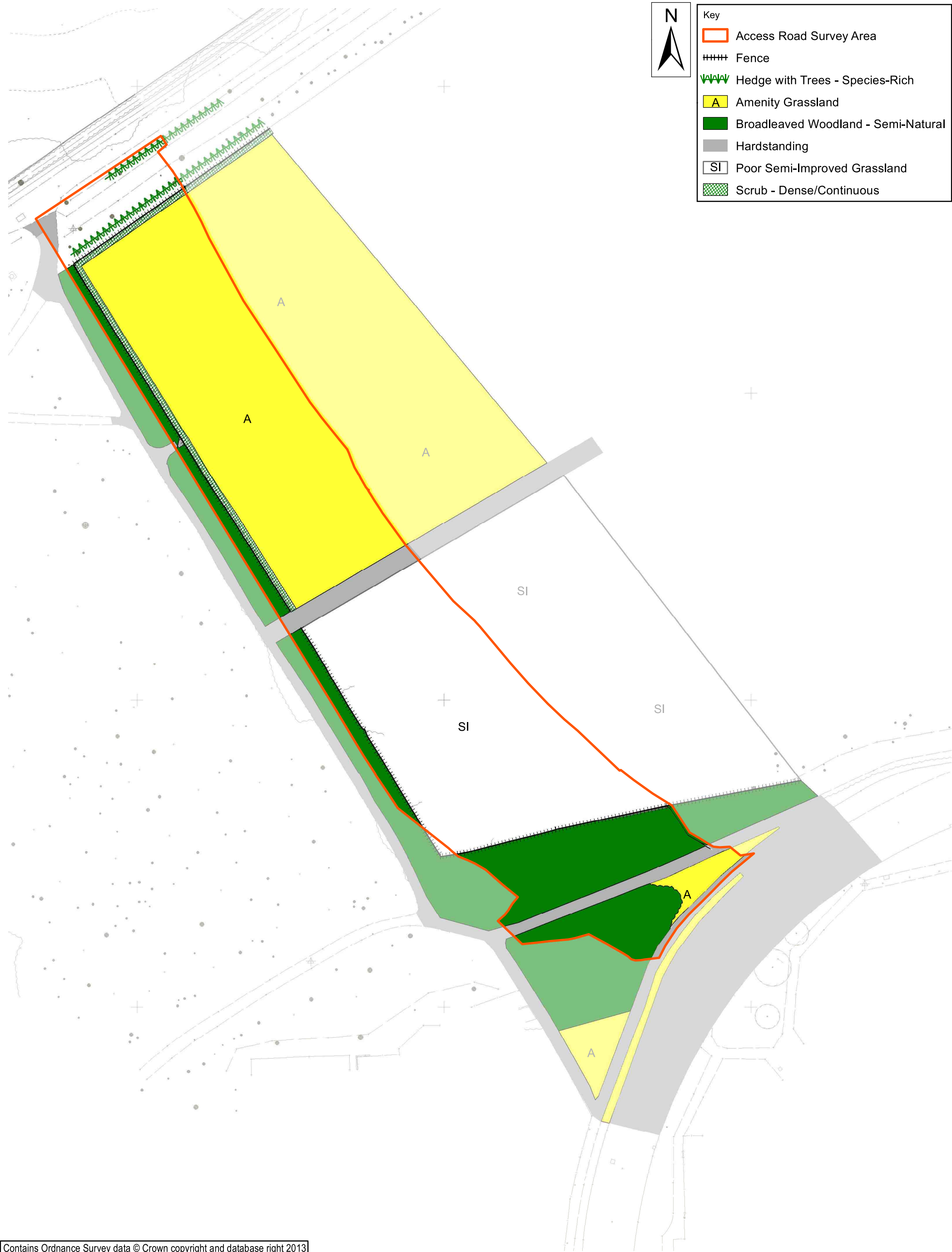
Hundt (2012). Bat Surveys – Good Practice Guidelines (2nd Edition). Bat Conservation Trust: London.

WSPE (2013) Woodcroft Farm, Wecock. Ecological Assessment Report

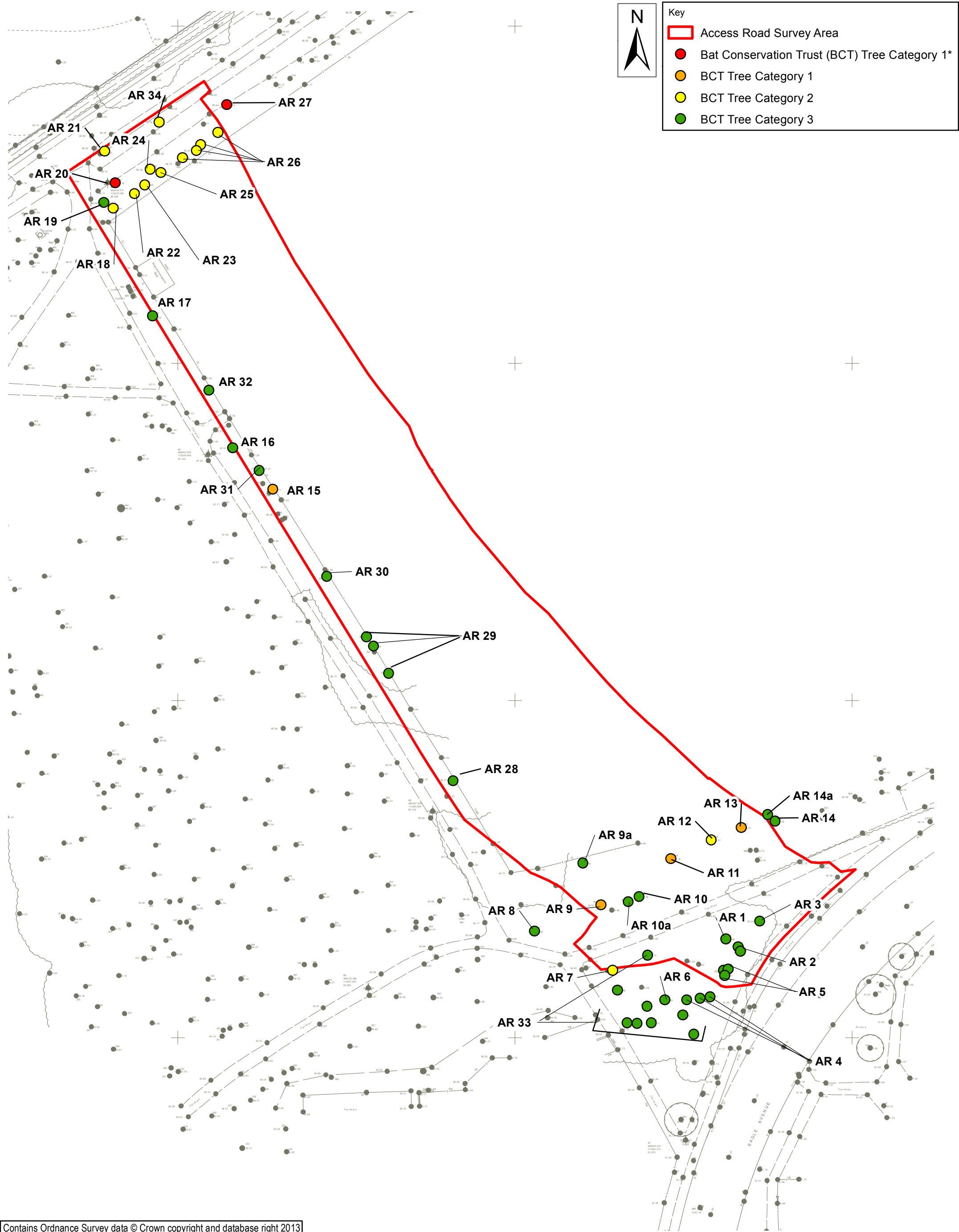
WSPE (2013) Woodcroft Farm, Wecock. Bats: detailed at height tree surveys

WSPE (2013) Woodcroft Farm, Wecock Bat Surveys





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Appendix A - Ground Level Tree Inspection Results

Tree Number	BCT Category (Hundt 2012)	Species	Approximate Hieght (m)	Surroundings	Description of features with potential to support bats
AR1	3	oak	8-10	woodland belt	Semi-mature tree, minimal ivy cover and no suitable features visible.
AR2	3	ash	5	woodland belt	Immature tree with minor dead limb (of insufficient width to support suitable features) and minimal ivy cover. No suitable features visible.
AR3	3	ash	6-8	woodland belt	Immature, no suitable features visible.
AR4	3	oak	10	woodland belt	Semi-mature tree with some ivy cover, however condition of tree indicate it is unlikely to contain suitable features which may be obscured by ivy.
AR5	3	ash	6	woodland belt	Immature, no suitable features visible.
AR6	3	oak	10-12	woodland belt	Semi-mature tree with some ivy cover, however condition of tree indicate it is unlikely to contain suitable features which may be obscured by ivy.
AR7	2	oak(dead)	6	woodland belt	Dead tree with very dense ivy cover, no obvious features visible but potential for rot features to be concealed by ivy.
AR8	3	ash	10	woodland belt	Semi-mature tree with no suitable features visible.
AR9	1	oak	10	woodland belt	Mature oak with dense ivy cover, including of sufficient size and age to form crevices for single bats at height. No other obvious features, but ivy obscures the trunk.
AR9a	3	ash	6-8	woodland belt	Tree on school boundary contains no suitable visible features.
AR10	3	oak	12	woodland belt	Two stemmed semi-mature oak with no potentially suitable features and no ivy cover.
AR10a	3	dead	3	woodland belt	Ivy present on short dead immature tree, but tree of insufficient width and age to be likely to support suitable features, and none are visible between the ivy.
AR11	1	ash	12	woodland belt	Immature multi stemmed ash, two rot cavities where branches have been torn off. One appears open to the rain and upward facing. The second is higher (approx 10m) and opens to the west, whilst the top of the cavity is very open and exposed it cannot be seen whether rot extends down and forms a cavity beneath.
AR12	2	oak	15	woodland belt	Mature oak with dead ivy cover, no obvious features visible, but the age and ivy cover mean inspection at height may reveal crevices suitable for single bats.
AR13	1	oak	15	woodland belt	Mature oak with no ivy present, a knot hole lies at approximately 3m on the south side of a branch and a split is present on top of a dead limb, though this opens upwards and is therefore likely to be wet. The tree contains features which may support single bats.
AR14	3	ash	10-12	woodland belt	Four stemmed immature ash with light ivy cover, the age and form of tree it is not considered likely to contain features suitable for bats beneath the light ivy cover.
AR14a	3	dead	horizontal	woodland belt	A small tree has been felled in its entirety, this forms dead wood lying on the floor; no features suitable for bats noted.
AR15	1	willow	8-10	woodland belt	A vertical split in a limb at approximately 2m facing east and west, in the lower part this is open but rot appears to continue upwards from this, forming a cavity where the limb is closed. No other suitable features visible.
AR16	3	oak	12-15	woodland belt	A semi-mature oak in good condition, no features suitable for bats are visible, a couple of thin dead limbs are present, but these have no features within them, nor rot into the trunk from them.
AR17	3	willow	8-10	woodland belt	A multi-stemmed semi mature willow with no ivy cover and no suitable features visible.
AR18	2	oak	15	woodland belt	A semi-mature oak of a size and age that inspection at height may reveal crevices concealed by ivy.
AR19	3	oak	15	woodland belt	A semi-mature tree with no ivy cover that is in good condition with the exception of the base which has been burnt. Condition of tree mean there is limited scope for crevices at height.
AR20	1*	oak	15	woodland belt	Semi-mature oak with ivy cover at height obscuring trunk. At approximately 3m limbs have been removed, loose and lifting bark lies around these forming crevices sufficient to be used by bats. Fire damage to the base has resulted in a shallow crevice behind the bark at approximately 2m and a woodpecker hole at the top of the burnt area.
AR21	2	oak	15	woodland belt	Mature oak with a light ivy covering at hieght on the south, east and west and dense ivy on the north side. No obvious features observed, but the tree is of a size and age that inspection at hieght beneath the dens ivy may reveal suitable features.
AR22	2	oak	15	woodland belt	A dead semi-mature tree which is densely ivy covered to 6m which could conceal suitable crevices.
AR23	2	oak	15	woodland belt	A live oak with no obvious features, though dense ivy cover may conceal suitable features.
AR24	2	oak	15	woodland belt	A semi-mature oak with no obvious features but of a size and age that ivy may conceal suitable features at height.
AR25	2	oak	15	woodland belt	A semi-mature oak with no obvious features but of a size and age that ivy may conceal suitable features at height.
AR26	2	oak	10-15	woodland belt	A line of four semi-mature oaks with no obvious features but sufficient ivy cover that may conceal features at height.
AR27	1*	oak	10-15	woodland belt	A rot cavity is present leading into a large limb where a branch tear out has occurred at 3-4m on the east side. The tree is of a size and age that it may contain further suitable features at hieght.
AR28	3	ash		woodland belt	A semi-mature three stemmed ash with no suitable features or ivy present.
AR29	3	ash		woodland belt	A group of three immature to semi-mature ash with no suitable features or ivy present.
AR30	3	dead		woodland belt	A dead tree with no suitable features, light ivy cover is insufficient to conceal potential features.
AR31	3	willow		woodland belt	A tree stump with immature regrowth and no suitable features.
AR32	3	willow	2	woodland belt	A tree stump within hawthorn and bramble, no suitable features visible.
AR33	3	ash and oak		woodland belt	A group of immature to semi-mature oak and ash trees with no suitable features visible.
AR34	2	oak	10-15	woodland belt	Oak of size and age that crevices may be concealed beneath ivy cover.

Appendix B – Photographs



Close mown amenity grassland and woodland on western Site boundary.



Poor semi-improved grassland with low tussock and thatch structure suitable for reptiles.



AR9: Ivy covered tree, potential roost features may be concealed.



AR11: Vertical split within immature ash with potential to support roosting bats.



AR13: Knot hole which may have suitability for roosting bats.



AR15: Vertical crevice with potential to support bats.



AR20: Lifting bark around tree limbs; may contain crevices suitable for single bats.



AR20: Woodpecker hole with potential to support bats.



AR23: Ivy covered trees. No obvious features, but ivy cover may conceal crevices suitable for single bats.



AR27: Crevise within large limb.