



Preliminary Ecological Appraisal

108 London Street, Reading

On Behalf of:

Aspire 108 London Street Ltd.

July 2018

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Report Status	Final
Date of Issue	11.07.2018

Ecology, Countryside Management

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Executive Summary

1. This report presents the results of a Preliminary Ecological Appraisal carried out at 108 London Street and Prince Regent House in Reading, Berkshire. The survey was carried out to inform a planning application for residential development of the site.
2. The site is located in the local authority of Reading Borough Council. There are two buildings on site which are connected by a link extension. The site is bordered by residential and commercial properties.
3. There are no European designated sites within 8km of the site however there were a number of statutory and non-statutory designated sites within 5km, comprising one Area of Outstanding Natural Beauty (AONB), nine Local Nature Reserves (LNR), and nine Local Wildlife Sites (LWS). Significant effects on these sites are not predicted.
4. The majority of habitats on site were either of low value, common or widespread. No rare/protected or non-native/invasive plant species were recorded.
5. White-clawed crayfish, hazel dormouse, otter, water vole, badger, invertebrates, reptiles, and great crested newt are considered to be absent from the site and will therefore be unaffected by the proposals. The building does provide opportunities for roosting bats however features suitable for roosting (hanging tiles) will not be affected by the works. Therefore, no further actions or mitigation measures are recommended for the above mentioned protected species.
6. Precautionary measures are set out to mitigate negative effects on nesting birds.

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1.0 Introduction

- 1.1 Southern Ecological Solutions Ltd. (SES) was commissioned by Aspire 108 London Street Ltd. to undertake a Preliminary Ecological Appraisal (PEA) for land at 108 London Street and Prince Regent House in Reading, Berkshire (the site) (Appendix 1). The site is approximately 264m² and comprises buildings, bare ground, and short perennial vegetation.
- 1.2 The proposed development comprises the conversion of the buildings on site from offices to seven residential apartments. This will include alterations to the floor plan of the front section of the building. All works will be internal and will not affect the exterior of the building.
- 1.3 The site is located within the designated Reading Central Area as defined by the Reading Central Area Action Plan, within the local authority of Reading Borough Council.
- 1.4 The following PEA follows guidance and methods as prescribed by the Chartered Institute for Ecology and Environmental Management (CIEEM) *Guidelines for Ecological Appraisal* (2013) and the *Guidelines for Ecological Impact Assessment* (2016). Following these methods, a baseline of rare and/or noted ecological receptors (species and habitats) was established and valued. Predicted significant impacts upon these receptors have been identified and constraints and opportunities identified. This step-wise assessment process has informed likely mitigation and enhancement measures. These surveys will fully inform the predicted impacts of the scheme in accordance with the National Planning Policy Framework (NPPF) (DCLG, 2012), local planning policy and relevant wildlife legislation.
- 1.5 The objectives of this PEA were to:
- Map the main ecological features within the site and compile a plant species list for each habitat type;
 - Make an initial assessment of the presence or likely absence of species of conservation concern;
 - Identify any legal and planning policy constraints relevant to nature conservation which may affect the development;
 - Determine any potential further ecological issues;
 - Determine the need for further surveys and mitigation;
 - Make recommendations for minimising impacts on biodiversity and providing net gains in biodiversity where possible in accordance with *chapter 11: Conserving and Enhancing the Natural Environment*, of the *National Planning Policy Framework (NPPF)* (DCLG, 2012) and relevant policies within the *Reading Borough Local Development Framework; Core Strategy* (adopted 2008) as set out in *Appendix 6*.

2.0 **Methods**

Desk Study

- 2.1** SES commissioned a data search for records of protected and notable species, and non-statutory designated sites from the Thames Valley Environmental Records Centre (TVERC). The data search encompassed the study area, and up to 2km from the boundary. Data were received from TVERC on 22 June 2018. Hazel dormouse *Muscardinus avellanarius* records were also sought from the National Biodiversity Network (NBN) Atlas, which holds data from the People's Trust for Endangered Species (PTES).
- 2.2** A web-based search for statutory designated sites via the Multi Agency Geographic Information for the Countryside (MAGIC) spatial data resource www.magic.gov.uk was undertaken on 11 June 2018 for the following designations: European (up to 8km from the site boundary); and national (5km from the site boundary).
- 2.3** An online search was undertaken for waterbodies within 500m of the site boundary utilising Promap www.promap.co.uk and MAGIC Map in May 2018.

Extended Phase 1 Habitat Survey

- 2.4** An extended Phase 1 Habitat Survey was carried out on 30 May 2018 by suitably qualified ecologist Chris Kelly BSc (Hons) MSc in appropriate weather conditions. This is a standard technique for obtaining baseline ecological information for areas of land, including proposed development sites. Phase 1 Habitat Survey methods are set out in the *Handbook for Phase 1 Habitat Survey* (Joint Nature Conservation Committee, 2010). Habitat mapping was undertaken using the standard classification to indicate habitat types.
- 2.5** The dominant and readily identifiable higher plant species identified in each of the various habitat parcels were recorded and their abundances assessed on the DAFOR scale:
- D - Dominant
 - A - Abundant
 - F - Frequent
 - O - Occasional
 - R - Rare
- 2.6** These scores represent the abundance within the defined area only and do not reflect national or regional abundances. Plant species nomenclature follows Stace (2010).

Protected and Notable Species

- 2.7** The site was assessed for its suitability to support the following protected and notable species that were likely to occur in the area, taking into account the location and habitats on site. This included:
- Rare and notable plant species;
 - Great crested newt *Triturus cristatus*;
 - Common reptile species;
 - Badger *Meles meles*;
 - Roosting bats;
 - Hazel dormouse

- Breeding and wintering birds;
- Rare and notable invertebrates; and
- Rare and notable mammals.

- 2.8** Habitats were assessed for their potential to support rare and notable plant species as well as non-native and invasive species listed on Schedule 9 of *The Wildlife and Countryside Act (WCA) 1981*.
- 2.9** Terrestrial habitats were assessed for their suitability for great crested newt. Suitable terrestrial habitat generally includes rough grassland and woodland where they can forage and hibernate, with good links to the ponds where they breed.
- 2.10** The site was assessed for its suitability for the four most common reptile species; common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis*, grass snake *Natrix helvetica*, and adder *Vipera berus*. Specific habitat requirements vary between species. Common lizard favours rough grassland, however it can be found in a variety of habitats ranging from woodland glades to walls and pastures. Slow-worm utilise similar habitat to common lizard and are often found in gardens and derelict land. Grass snake habitat requirements are similar to that of common lizard, albeit with a greater reliance on ponds and wetlands. Adder is often associated with woodland edge habitat and rough, open countryside.
- 2.11** An initial assessment was made to identify areas that might be used by badger for foraging, commuting and sett creation.
- 2.12** The site was assessed for its suitability to support roosting bats. Buildings were assessed from ground level following best practice guidance, and assigned a corresponding level of suitability (Collins, 2016).

Table 1: Assessment of the potential suitability of a proposed development site for roosting bats (Collins, 2016)

Suitability	Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

- 2.13** The site was assessed for its potential to support breeding and wintering birds. Suitable habitat generally includes scrub, trees and ruderal vegetation but can also include buildings, open grassland, and piles of debris.
- 2.14** The site was assessed for potential to support rare and notable invertebrates. Suitable habitats generally include vegetation with a mosaic of differing heights, and areas of deadwood.
- 2.15** Habitats were assessed for their suitability for hazel dormouse. Dormouse generally uses areas of dense woody vegetation and is more likely to be found where there is a wide diversity of woody species contributing to a three-dimensional habitat structure, a number of food sources, plants suitable for nest-building materials and good habitat connectivity.
- 2.16** The site was assessed for potential to support rare and notable mammals. Suitable habitats generally include arable field margins, grassland, and areas of scrub and hedgerow.

2.17 All ecological resources or features are assigned to a value relating to their geographic frame of reference, using the following scale:

- International;
- National (England);
- Regional (South);
- County (Berkshire);
- District (Borough of Reading);
- Local (Reading); and
- Site (108 London Street).

Constraints

2.18 Desktop data searches are a valuable tool in evaluating a site's potential to hold rare and protected species, it is not however an absolute in confirming presence or absence of notable species due to the nature of how the records are collected.

3.0 Findings and Recommendations

Extended Phase 1 Habitat Survey

- 3.1 The Phase 1 Habitat map of the site is provided in Appendix 3 and the plant species recorded per habitat type are tabled in Appendix 4. Photographic plates are provided in Appendix 5. Relevant legislation and local policy framework is in Appendix 6.
- 3.2 In general, 108 London Street is a mid-terrace townhouse of three storeys located on the west side of London Street in Reading. A large two storey, modern brick extension (forming an office block) is located to the rear, which is adjoined to the original structure via a link corridor. The site is located in the centre of Reading and is surrounded by residential and commercial development on all sides.
- 3.3 Broad habitat types within the wider study area were found to be largely consistent with previous survey, and included:
- Bare ground;
 - Buildings;
 - Introduced shrub;
 - Short perennial.

Bare Ground

- 3.4 Two areas of bare ground were present on site; a tarmac driveway at the far west of the main building, and a small courtyard parallel with the link corridor comprised of paving slabs.

Buildings

- 3.5 The majority of the site is comprised of the buildings at 108 London Street and Prince Regent House. As described in section 3.2, the building is made up of an 18 Century brick built three storey townhouse, with stone coping under a pitched old tile roof (Building 1a) (Appendix 5; Plate 1). This structure is adjoined by a link building to a two storey modern brick extension, with a pitched tile roof (Building 1b) (Appendix 5; Plate 2). The link building itself was single storey, brick built, and had a pitched roof with slate tiles (Building 1c) (Appendix 5; Plate 3).

Introduced Shrub

- 3.6 A small area of introduced shrub was present within the courtyard (Appendix 5; Plate 4).

Short Perennial

- 3.7 The courtyard parallel with Building 1c had some short perennial weeds starting to grow up through the paving. Species included dandelion *Taraxacum agg.* and ivy *Hedera helix*.

Summary

- 3.8 Most of the habitats recorded are not considered to be notable or rare within the local area. Habitats are considered to be of value at a **Site** level only.

Statutory/Non-statutory Sites

- 3.9** No European designated sites were identified within 8km of the site boundary.
- 3.10** 10 national statutory designated sites were recorded within 5km of the site; these included nine Local Nature Reserves (LNR) and one Area of Outstanding Natural Beauty (AONB) (Table 2).
- 3.11** The site is not located within any SSSI Impact Risk Zones.
- 3.12** The closest statutory designated site is Highwood LNR, 2.9km east of the site. Given the distances involved and the small scale of the site, potential direct and indirect effects from the construction and operation of the site upon the nature conservation features of the protected sites are considered negligible and are not considered further.

Table 2: Statutory Designated Sites within the vicinity of the site

Site Name	Size (Ha.)	Distance and Direction from Site	Reason for Designation
Highwood LNR	15.23	2.9km east	Mixed lowland woodland that includes areas of heathland and an exotic arboretum. It supports a variety of breeding bird species.
Lousehill Copse LNR	13.03	3.2km west	Semi-ancient woodland habitat with associated ground flora.
Maiden Erlegh Lakes LNR	10.5	3.2km east	Lowland mixed deciduous woodland and ancient semi-natural woodland, with eutrophic open water.
Chilterns AONB	83800	3.4km north	Contains an important diversity of habitats ranging from chalk grassland to extensive areas of beech woodland
Pearman's Copse LNR	6.89	3.8km south	A small area of ancient woodland. Links with Dinton Pastures Country Park.
Clayfield Copse LNR	8.65	3.9km north	Ancient woodland with service trees and wild pear. Ancient woodland indicator floral species present. Ancient boundary banks and ditches are also present.
Round Copse LNR	1.66	4.0km west	Dense woodland with a variety of birdlife.
McIlroy Park LNR	11.98	4.0km west	Semi-ancient woodland with associated ground flora indicator species.
Blundell's Copse	5.55	4.2km west	Ancient woodland habitat with a stream. Supports bats, hedgehog, and amphibians.
Ali's Pond LNR	0.43	4.4km east	Supports Local BAP species great crested newt, harvest mouse, stag beetle, song thrush, pipistrelle, and ragged robin.

Statutory Designated Sites:

National: AONB = Area of Outstanding Natural Beauty; LNR = Local Nature Reserve

Non-Statutory Designated Sites

- 3.13** Nine non-statutory designated sites were identified within 2km (Table 3). The two closest of these are Fobney and Kennet Valley Meadows Local Wildlife Site (LWS) (1.2km south west) and Holy Brook LWS (1.2km south west).
- 3.14** Given the distances involved between sites, potential direct effects on non-statutory designated sites caused by the proposed development are considered to be negligible and are not considered further.
- 3.15** It is considered that indirect impacts, such as increased recreational disturbance, are highly likely to be insignificant, given the scope of the development.

Table 3: Non-statutory designated sites (LWS) within 2km of the site

Site Name	Size (Ha.)	Distance and direction from Site	Reason for Designation
Fobney and kennet valley meadows LWS	140.4	1.2km south west	Permanent pasture with wet grassland and patches of swamp vegetation. Supports overwintering wildfowl and a diverse invertebrate assemblage.
Holy brook LWS	4.5km long	1.2km south west	UK priority habitat; chalk river. Water vole has been recorded.
The coal, kennetmouth and kings meadow east LWS	3.62	1.3km north	Presence of open mosaic habitat on previously developed land. Supports bluebell.
Reading cemetery LWS	4.7	1.4km east	Site has elements of a lowland meadow habitat type. Supports bluebell.
Cow lane depot LWS	1.5	1.5km north west	Mosaic of habitats including standing water, reeds, and encroaching willow scrub. Provides a wildlife corridor within an urban landscape.
Whitely park farm / St Patrick's hall LWS	2.0	1.5km south	Presence of habitats and species of principal importance; lowland mixed deciduous woodland, bullfinch, linnet, lesser spotted woodpecker, spotted flycatcher, song thrush.
Henley road gravel pit LWS	53.7	2.0km north	Supports a range of wildfowl including some species of conservation concern, in addition to several nationally scarce insects.
River kennet / kennet and avon canal LWS	--	2.0km south	One of the best examples of a chalk river nationally and UK Priority habitat. Supports water vole, freshwater crayfish, bluebell.
Whiteknights park LWS	26.1	2.0km south east	Presence of habitats of principal importance; parkland and wood pasture, eutrophic standing water. Presence of protected species; bluebell, summer snowflake, stag beetle, kingfisher.

Non-Statutory Designated Sites:

LWS = Local Wildlife Site.

Protected Habitats

- 3.16** Protected habitats were not observed, and it is considered that none are notable or rare.

Protected and Notable Species

Rare and Notable Plants

- 3.17** Records of *Schedule 8* species bluebell *Hyacinthoides non-scripta* were identified within 2km of the site boundary. Habitats on site (bare ground, buildings, introduced shrub) are not considered suitable to support bluebell, and this species was not observed during the survey. Species observed on site were all common, and it is considered that none are threatened or protected. No further works are necessary.
- 3.18** Records of *Schedule 9* invasive species identified within 2km of the site included Indian balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica*, and *Rhododendron ponticum*. None were identified during the site walkover.
- 3.19** It is understood that the works will commence before 30 May 2019 (i.e. 12 months from the original survey date). However, as there are records of invasive species in the local vicinity, an updated walkover survey is recommended if construction has not commenced by this time.

Badger

- 3.20** There were 10 records of badger within 2km of the site boundary, most recently in 2015, 0.8km east of site. At least one sett was identified in this location however, it is considered that this is sufficiently isolated from the site due heavy urban development and a lack of connective green space.
- 3.21** The habitats on site are considered to provide limited opportunities for badger; areas of introduced shrub within the courtyard may provide suitable foraging areas but are isolated from the wider environment. The site does not have any embankments suitable for sett building.
- 3.22** Given the lack of suitable habitat on site for sett building, foraging and dispersal, it is considered highly unlikely that badger would be present on site, and that the proposed works would trigger a badger-related offence. The site is not considered to have value for badger. Further survey is therefore not required.

Bats

- 3.23** There were records of at least six bat species within 2km of the site (Table 4).

Table 4: Records of bat species within 2km of the site boundary

Bat Species	Number of records	Last recorded (c. distance from site)
Brown long-eared <i>Plecotus auritus</i>	13	2017 (2.0km)
Common pipistrelle <i>Pipistrellus pipistrellus</i>	115	2017 (2.0km)
Daubenton's <i>Myotis daubentonii</i>	23	2014 (1.0km)
Nathusius' pipistrelle <i>Pipistrellus nathusii</i>	1	2014 (0.3km)
Noctule <i>Nyctalus noctula</i>	54	2017 (2.0km)
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	62	2017 (2.0km)
Unidentified bat Chiroptera	3	2009 (0.9km)
Unidentified <i>Myotis</i> sp.	15	2016 (1.5km)
Unidentified pipistrelle <i>Pipistrellus</i> sp.	64	2017 (2.0km)

- 3.24** The site in general is heavily urbanised and is not ecologically connected to any significant amount of suitable habitat.

Bats – roosting

- 3.25** No trees were present on site. Buildings were externally and internally inspected, including the use of a high-powered torch and binoculars. In general, buildings were in good condition. Gaps between roofing tiles and lead flashing around chimneys were not observed, and barge boards and soffit boxes were well sealed. Hanging tiles were observed on the northern aspect of Building 1b, which can be utilised by crevice dwelling species such as common pipistrelle *Pipistrellus pipistrellus*.
- 3.26** Internally, points of ingress for bats were not observed. Bats or their field signs were not observed across all buildings, and loft spaces frequently had dense cobwebs.
- 3.27** Following internal and external inspections, it is considered that the loft voids do not offer suitable roosting opportunities for bats, given the lack of points of ingress. However, hanging tiles observed on the northern aspect of Building 1b may provide suitable roosting features for crevice dwelling species. The proposed works are entirely internal and as such will not result in damage or destruction to this roosting feature. It is considered that low numbers of bats could utilise the features of Building 1b on an opportunistic / transitory basis. Following best practice guidance (Collins 2016) the site is considered to offer 'low' potential to support roosting bats. As the features observed will not be affected by the proposed works, further surveys are not required. The site is valued at a **Site** level for roosting bats.

Bats - foraging/commuting

- 3.28** Habitats on site are not considered to be suitable for foraging and commuting bats (bare ground, buildings), and the vegetation present (short perennial, introduced shrub) is of little quantity and is not considered to form a valuable habitat feature. The site does not offer any connectivity to the wider environment for bats. Given the absence of suitable habitat for commuting and foraging bats, the site is considered to be of negligible value following best practice guidelines (Collins 2016). Given this, surveys are not required.
- 3.29** Given the high levels of light pollution in the immediate environment around site, a sensitive lighting strategy during the construction and operational phases of development is not considered necessary.

Birds

- 3.30** 281 records of birds were recorded within 2km of the site. 10 species are protected under *Schedule 1* of the *WCA 1981* including redwing *Turdus iliacus*, kingfisher *Alcedo atthis*, peregrine *Falco peregrinus*, and firecrest *Regulus ignicanilla*. There were also many red-listed species (Eaton *et al.* 2015) including farmland species such as spotted flycatcher *Muscicapa striata*. The habitats on site (bare ground, building, introduced shrub) are considered to provide suitable hunting/foraging/nesting habitats for only the most generalist of species, and are not considered to be suitable for *Schedule 1* species identified. Observations made during the walkover survey indicate that the site is not being utilised by nesting birds.
- 3.31** Given the size of the site, and quality of habitats present, breeding bird surveys are not considered necessary. Habitat suitable for nesting (e.g. introduced shrub) should be cleared outside of the nesting season (generally 1 March to 31 August) or after an ecologist has confirmed active nests are not present.

Great Crested Newt

- 3.32** There was one record of great crested newt (GCN) within 2km, 1.2km from site, in 2017. However, this individual is separated from the site by the River Thames, and the population is considered to be ecologically isolated from site.
- 3.33** There are no suitable waterbodies (e.g. ponds without flowing water) within 500m of the site. The wider environment is comprised of residential and commercial development, with isolated areas of sub-optimal habitat (amenity grassland and scattered trees) intermittently dispersed throughout.
- 3.34** There is no aquatic habitat on site and habitats (bare ground, building, short perennial, introduced shrub) are not considered to provide suitable terrestrial habitat for GCN. Building foundations were found to be in good condition and cracks/crevices were not evident. Refugia in the form of debris was observed in the driveway at the west of the site; however, this refugia was isolated from any suitable habitat and as such is not considered to be suitable for GCN.
- 3.35** Habitats on site are not considered suitable for GCN, and it is isolated from suitable habitat within the local environment. Given this, it is considered highly unlikely that GCN is present on site. Impacts upon GCN by the proposed development is considered highly unlikely, and further surveys are not required.

Invertebrates

- 3.36** Notable invertebrate records included *NERC* (2006) act species of principal importance stag beetle *Lucanus cervus* meadow ant *Formica pratensis*, red-shanked carder-bee *Bombus ruderarius*, small heath *Coenonympha pamphilus*, and cinnabar *Tyria jacobaeae*.
- 3.37** The bare ground on site with short perennial vegetation may provide small amounts of habitat for some invertebrate species. However, habitats do not exhibit a mosaic of vegetation heights or transient habitats generally preferred by invertebrates. Deadwood suitable for saprophytic species such as stag beetle was not present. Given the habitats present it is considered that the site does not support any significant assemblages of rare/notable invertebrates and no further survey is required. The site is valued at **Site** level for invertebrates.

Notable mammals

- 3.38** Nine records of hedgehog *Erinaceus europaeus* were identified within 2km of the site, most recently in 2015, 1.6km away. Harvest mouse *Micromys minutus* and brown hare *Lepus europaeus* records were not identified within 2km.
- 3.39** Given the habitats present (bare ground, building, short perennial, introduced shrub), the site is not considered to provide suitable habitat for notable mammal species; areas of introduced shrub in the courtyard area are considered to offer some sheltering opportunities for hedgehog, but walls present are considered to provide sufficient barriers to dispersal that it is considered highly unlikely that hedgehog would be present. Impacts caused by development on notable mammal species are not predicted and no further survey is required.

Reptiles

3.40 Records of grass snake and slow worm were identified within 2km of the site (Table 5).

Table 5: Reptile species recorded within 2km of site.

Bat Species	Number of records	Last recorded (c. distance from site)
Grass snake <i>Natrix helvetica</i>	4	2009 (1.7)
Slow worm <i>Anguis fragilis</i>	12	2013 (1.7)

3.41 The habitats on site are considered to be unsuitable for reptiles, comprising bare ground, buildings, short perennial vegetation and introduced shrub. Given the habitats on site and the isolated nature of the site from suitable areas of habitat, it is considered highly unlikely that reptiles would be present on site. Given this, presence/absence surveys are not considered necessary.

Other Species

3.42 It is deemed highly unlikely that the following species would be present on site, given a lack of local records and suitable habitat.

- White-clawed Crayfish *Austropotamobius pallipes*;
- Hazel dormouse *Muscardinus avellanarius*;
- Otter *Lutra lutra*;
- Water vole *Arvicola amphibious*.

Summary

Feature	Summary Description	Value	Confidence
Habitats	Bare ground Building Introduced shrub	Negligible	High
Flora	Higher and lower plant species	Negligible	High
Badger	The site does not provide suitable sett building, foraging, or dispersing opportunities.	Negligible	High
Bats	The site provides minor suitable roosting habitat for small numbers of bats.	Site	High
Birds	Unsuitable habitat and size of site indicate it can not support breeding birds. Some nesting habitat is present.	Site	High
Invertebrates	Site does not provide suitable habitat for invertebrate species.	Negligible	High
Notable mammals	Some sheltering habitat for hedgehog, but it is isolated.	Negligible	High
Reptiles	The site does not provide suitable habitat for foraging reptiles	Negligible	High

4.0 Conclusions

- 4.1** The site (c.264m²) is comprised of bare ground, buildings, short perennial, and introduced shrub and is located in Reading, Berkshire.
- 4.2** Significant effects are not predicted upon statutory/ non-statutory designated sites in the locality given the scale of the development and distances involved, and further assessment is not required.
- 4.3** Habitats on site are common and of low ecological value. No further survey work is considered necessary. The proposed development has potential to affect nesting birds. Nesting birds will be protected by the following precautionary working methods:
- Removal of scrub to be done outside of nesting bird season (March-August) or after an ecologist has confirmed the absence of nests.
- 4.4** An updated walkover survey for *Schedule 9* invasive species has been recommended, should works commence more than 12 months after the date of survey (30/05/2018).
- 4.5** In summary, it is predicted that any potential adverse impacts from the proposed development upon specific protected species/habitats can be mitigated. With appropriate on-site mitigation and targeted enhancements, a positive change in the biodiversity could potentially be achieved, in line with chapter 11: *Conserving and Enhancing the Natural Environment*, of the NPPF (DCLG, 2012) and development control policies as set out in the *Reading Borough Local Development Framework* (adopted 2008).

5.0 References

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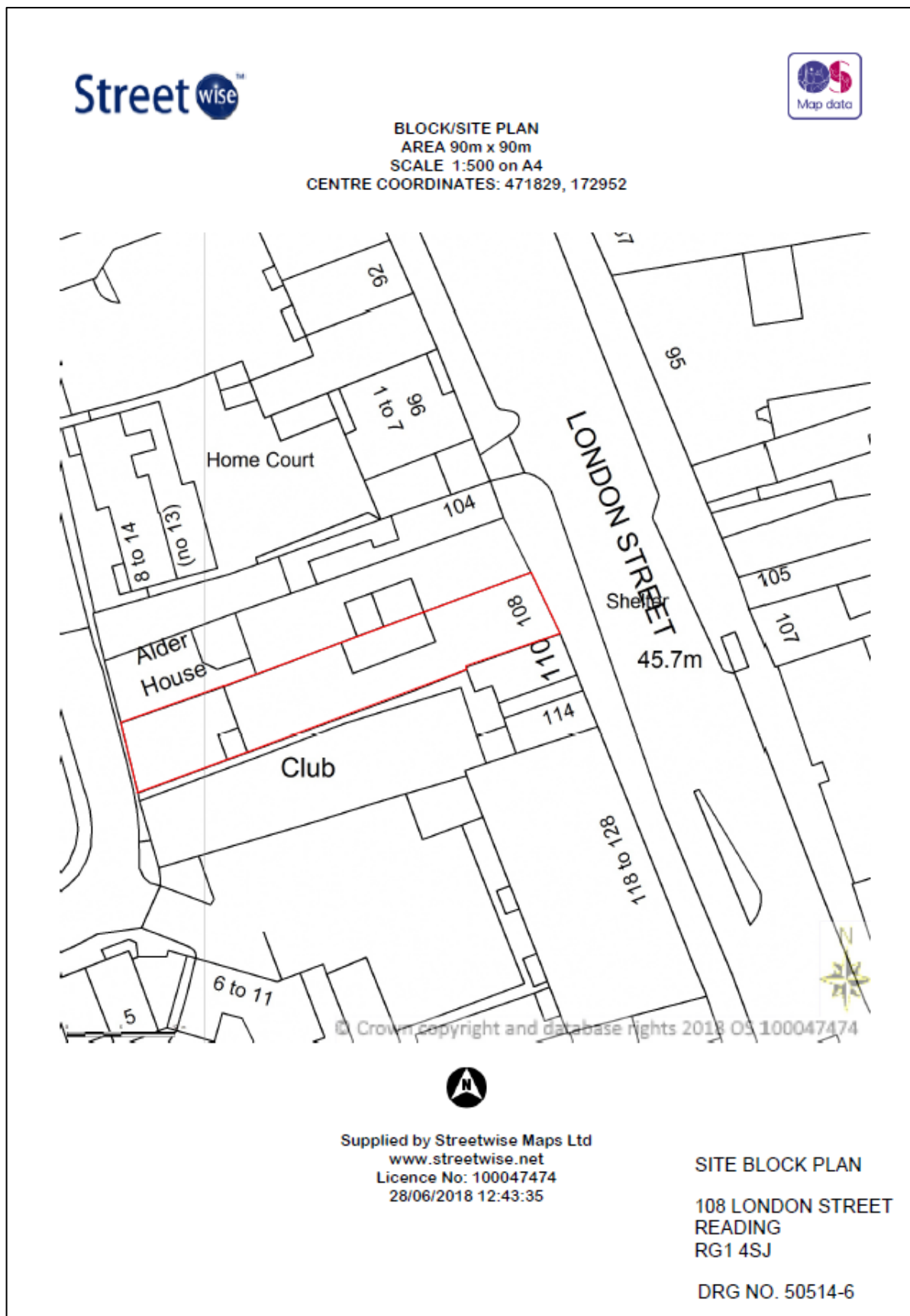
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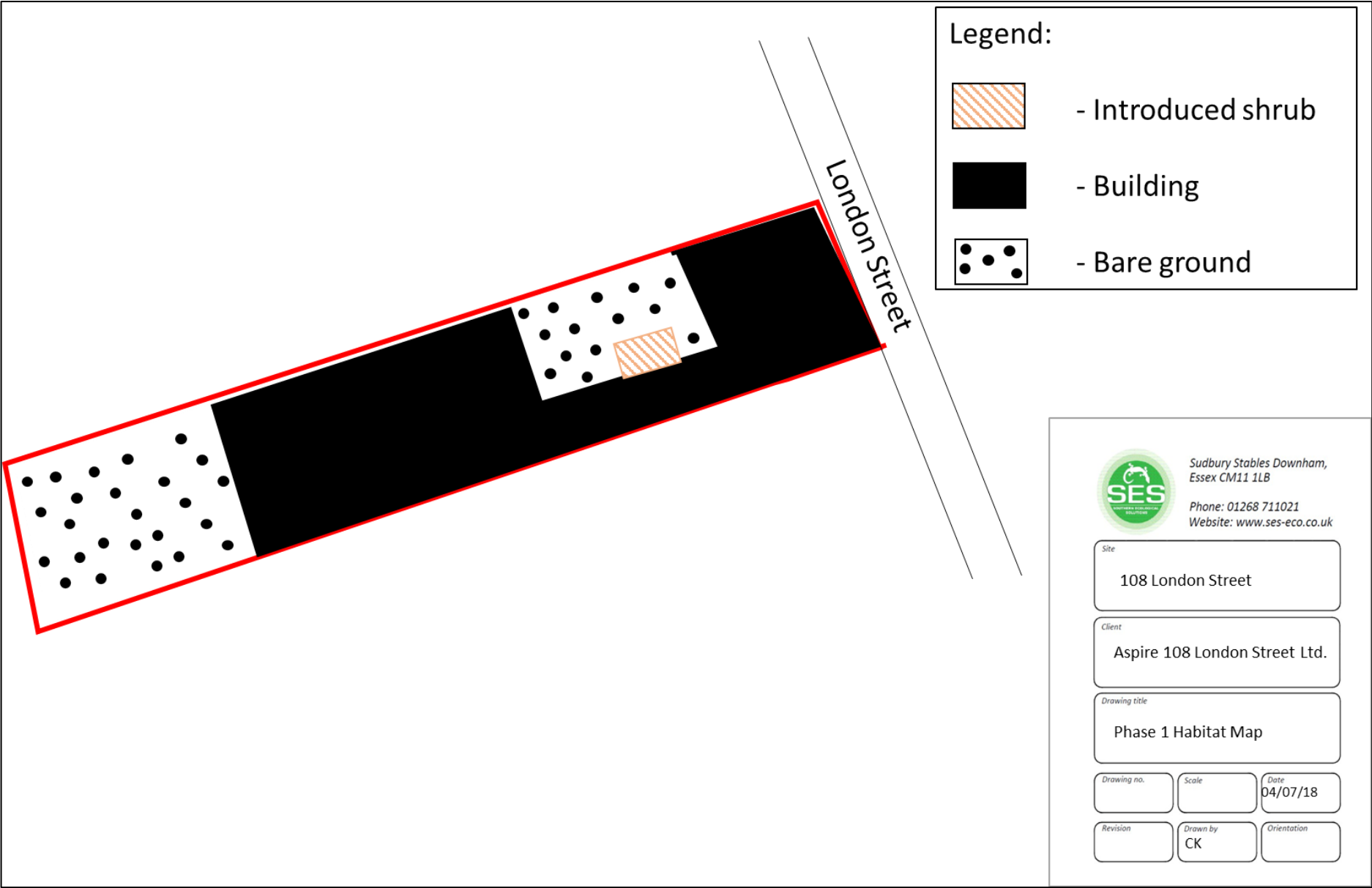
Appendix 1. Site Location



Appendix 2. Proposed Development



Appendix 3. Extended Phase 1 Habitat Map



Appendix 4. Plant Species List and Relative Abundance

Common name	Latin name	Short Perennial
Broad-leaf dock	<i>Rumex obtusifolius</i>	R
Cleavers	<i>Galium aparine</i>	A
Common nettle	<i>Urtica dioica</i>	F
Dandelion	<i>Taraxacum agg.</i>	D
Ivy	<i>Hedera helix</i>	O

Appendix 5. Plates

Plate 1: Building 1a (exterior) (View: west)



Plate 2. Building 1b (exterior) (View: east)



Plate 3: Building 1c and introduced shrub (View: south west)



Appendix 6: Legislative and Policy Framework

National Planning Policy

The *NPPF* (DCLG, 2012) outlines what the planning system should do to contribute to and enhance the natural and local environment through the following policy statements:

Paragraph 7

There are three dimensions to sustainable development: economic, social and environmental; these give rise to the need for the planning system to perform a number of roles:

- An environmental role- contributing to protecting and enhancing our natural, built and historic environment; and, as part of this, helping to improve biodiversity, use natural resources prudently, minimise waste and pollution, and mitigate and adapt to climate change moving to a low carbon economy.*

Paragraph 9

Pursuing sustainable development involves seeking positive improvements in the quality of the built, natural and historic environment, as well as in people's quality of life including but not limited to:

- Moving from a net loss of biodiversity to achieving net gains for nature.*

Paragraph 109

The planning system should contribute to and enhance the natural and local environment by:

- Recognising the wider benefits of ecosystem services;*
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.*

Paragraph 118

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- 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 planning permission should be refused; and*
- Opportunities to incorporate biodiversity in and around developments should be encouraged.*

Paragraph 125

By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.

Paragraph 152

Local planning authorities should seek opportunities to achieve each of the economic, social and environmental dimensions of sustainable development and net gains across all three.

- Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- Recognising the wider benefits of ecosystem services;*
- Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity,*

including establishing coherent ecological networks that are more resilient to current and future pressures.

Local Planning Policy

The policies related to nature conservation published by the *Reading Borough Council* (Adopted 2008 with alterations adopted 2015) are set out below.

Policy CS36 – Biodiversity and Geology

- a) Development should retain, protect and incorporate features of biodiversity or geological interest (including protected species and their habitats) found within the application site into their schemes.

On sites with recognised biodiversity or geological value, development will not be permitted where there would be a direct or indirect adverse impact on the site, unless it can be clearly demonstrated that:

- i. The need for development clearly outweighs the need to protect the value of the site; and
 - ii. Appropriate compensation, impacts minimisation, mitigation and compensation are provided.
- b) Local Nature Reserves and Wildlife Heritage Sites will be safeguarded and where possible, enhanced. Permission will not be granted for any development that would adversely affect a designated nature reserve or Wildlife Heritage site.
- c) Any development that would sever or threaten the integrity of an established wildlife link, as indicated on an adopted proposals map, will not be permitted. Where applicable, developments should be designed to protect, consolidate, extend and enhance the network of wildlife links and corridors in and adjoining the Borough, working with neighbouring authorities where appropriate.

Policy CS38 – Trees, Hedges and Woodlands

Individual trees, groups of trees, hedges and woodlands will be protected from damage or removal, and the Borough's vegetation cover will be extended.

Wildlife Legislation

The two principal wildlife statutes are the *Conservation of Habitats and Species Regulations (Habitats Regulations) 2017*, which deals with internationally important sites and species, and the *WCA 1981* that deals with nationally important sites and species.

Certain habitats and species within discrete sites are protected as Sites of Special Scientific Interest under the *WCA 1981*. In addition, Local Nature Reserves are protected under Section 21 of the *National Parks and Access to the Countryside Act 1949*.

A proportion of designated sites are more strictly protected as proposed or designated Special Protection Areas, Special Areas of Conservation, and Ramsar wetland of international importance under the *Habitats Regulations 2017*. These designations protect features and resources listed as being of international importance from both direct and indirect effects arising from a range of issues including proposed development.

Certain species listed on *Schedule 5* of the *WCA 1981*, including all bat species, great crested newt, hazel dormouse and otter are also protected under *Schedule 2* of the *Habitats Regulations 2017* making them European Protected Species (EPS). Taken together it is illegal to:

- Deliberately kill, injure or capture any wild animal of EPS;

- Deliberately disturb wild animals of any EPS in such a way to be likely to significantly affect:
 - The ability of any significant groups of animals of that species to survive, breed, rear or nurture their young; or
 - The local distribution of that species.
- Recklessly disturb a EPS or obstruct access to their place of rest;
- Damage or destroy breeding sites or resting places of such animals;
- Deliberately take or destroy the eggs of such an animal;
- Possess or transport any part of a EPS, unless acquired legally; and/or
- Sell, barter or exchange any part of an EPS.

A range of species other than birds, including water vole, are protected from disturbance and destruction under the *WCA 1981* through inclusion on *Schedule 5*.

All breeding birds are protected from deliberate destruction under the *WCA 1981*. Certain species are further protected from disturbance at their nest sites being listed on *Schedule 1* of the *WCA 1981*.

Commoner reptiles including common lizard, slow-worm, grass snake and adder are protected under the *WCA 1981*, they are listed as *Schedule 5* species, therefore part of *Section 9(1)* and *Section 9(5)* apply; the *Countryside and Rights of Way Act 2000 (CROW)* also strengthens their protection.

Badger is protected from sett disturbance and destruction under the *Protection of Badgers Act 1992*.

Section 40 of *NERC 2006* places a legal duty on Local Authorities to conserve biodiversity. *Section 41 (S41)* sets out a list of 943 species and habitats of principal importance. These species are known as England Biodiversity Priority (EBP) species and are those identified as requiring action under the former UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Native, species-rich hedgerows fitting certain criteria are protected as being 'important' under the *Hedgerow Regulations 1997*.

Japanese Knotweed, along with a number of other introduced and invasive species, are listed under *Schedule 9* of the *WCA 1981*. Japanese knotweed is highly invasive and its rhizomes cause damage to built structures. Hence it is also classed as controlled waste under the *Environment Protection Act 1990* and has to be removed and disposed of in a licensed landfill or the rhizomes buried to a depth of at least 5m