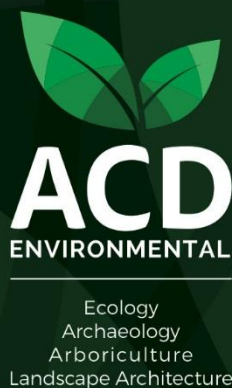


SCOUT AND
GUIDE HQ
163 NORTHCOURT
AVENUE
READING

INTERIM
ECOLOGICAL
IMPACT
ASSESSMENT
(EcIA)



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QUALITY ASSURANCE

This report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Report Writing (2nd Edition, December 2017).

The facts stated in this report are true to the best of our knowledge and belief, and any opinions expressed are held genuinely and in accordance with the accepted standards of the profession. ACD Environmental Ltd is a CIEEM Registered Practice.

Client:	Mr Nigel Phillips
Site/job:	Scout and Guide HQ, Reading
Author:	Hayley Roberts
Technical review:	Jennifer Lackie



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1 EXECUTIVE SUMMARY

Purpose of report	To assess the ecological impacts of a proposed redevelopment of a plot at 163 Northcourt Avenue, Reading, to include the demolition and replacement of the existing building.
Description of proposed development	Full planning permission is being sought for demolition of the existing building and provision of a new more efficient building with associated soft landscaping and parking.
Designated nature conservation sites	No statutory or non-statutory designated sites are anticipated to be impacted by the development proposals.
Key habitats	The most valuable habitats present within the Application Site are three mature oak trees at the eastern boundary. These are due to be retained in the current scheme.
Key species	No protected species were observed during the survey, however the southern and eastern elevations of the main building provided gaps beneath lifted wooden cladding which could be used by small numbers of roosting bats. One emergence survey carried out in May 2023 found no bats were using these features. Variegated yellow archangel, a Schedule 9 species, was identified onsite and must be removed in accordance with advice from invasive species specialists.
Key impacts & mitigation/compensation measures	Based upon the results of the surveys no impacts on protected species are anticipated. General measures to protect fauna are considered sufficient and proportionate to protect wildlife.
Conclusions	The proposed development will comply with Paragraph 174-182 of the NPPF, and local planning policy.

2 INTRODUCTION

- 2.1. This report provides an interim assessment of the ecological effects of the proposed development of an area of land known at 163 Northcourt Avenue, Reading, hereafter referred to as the Application Site (see Image 1).

Background

- 2.2. The Application Site is located in an urban area of Whitely, Reading with residential and commercial developments at each of the boundaries. The Application Site itself comprises two buildings in use as the Headquarters for Scouts and Guides Reading. Surrounding the building is a worn modified grassland which itself is bounded by ornamental hedgerows.
- 2.3. The client intends to submit a planning application, which this report will accompany, for the replacement of the existing building with a new more efficient building which will continue to be used by the Scouts and Guides.

Competence

- 2.4. This report has been written by Hayley Roberts of ACD Environmental Ltd. Hayley is a Senior Ecologist, with over 5 years' experience working for commercial consultancy. Hayley is experienced in both habitat and protected species surveys and producing associated reports including EcIA. Hayley holds Natural England Class Licences for great crested newts *Triturus cristatus*, bats (Level2) and barn owl *Tyto alba* and is a FISC Level 4 botanist with UK Habitat Classification training.
- 2.5. A Technical Review of this report has been undertaken in line with ACD Environmental Ltd's Quality Assurance procedures. The Technical Review was undertaken by Jennifer Lackie. Jennifer is Team Leader and Senior Ecologist and has over 6 years' experience working for commercial consultancy. Jennifer has significant experience of EcIA and protected species surveys. Jennifer is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Jennifer holds class licences for barn owl *Tyto alba*, bats (level 1) and great crested newt *Triturus cristatus*.

Purpose of the report

- 2.6. The purpose of this interim Ecological Impact Assessment (EcIA) is as follows:
- To identify and describe all potentially significant ecological effects associated with the proposed development.

- To set out the mitigation measures required to ensure compliance with nature conservation legislation and relevant planning policy, and to address any potentially significant ecological effects.
- To identify how mitigation measures will/could be secured.
- To identify any significant residual ecological effects and set out any compensation measures proposed to address these.
- To identify appropriate enhancement measures in order to achieve Biodiversity Net Gain.
- To set out the requirements for post-construction monitoring.



Image 1: The approximate location of the Application Site with the site boundary in red.

3 PLANNING POLICY AND LEGISLATION

Legislation

3.1. The following pieces of legislation are of specific relevance to this assessment:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019¹. This piece of legislation is of relevance because the Application Site has potential to support roosting bats, all of which are European Protected Species (EPS).
- Wildlife and Countryside Act 1981² (as amended, including by the Countryside and Rights of Way Act 2000).
- Natural Environment and Rural Communities (NERC) Act 2006³. Section 41 includes lists of habitats and species recognised as of 'principal importance' for the conservation of biodiversity. Section 40 of the NERC Act 2006 requires all public bodies to have regard for biodiversity conservation when carrying out their function. This is commonly referred to as the 'biodiversity duty'.

3.2. The following pieces of legislation have been considered, but are not considered to be of specific relevance in this case:

- Protection of Badgers Act 1992 (no badger setts are present within the Application Site or are sufficiently close to be affected).
- Hedgerows Regulations 1997 (the Regulations do not apply to the hedgerows in this context due to their ornamental nature).

Planning policy

National Planning Policy Framework 2021⁴

3.3. Paragraph 174-182 of the NPPF relates to 'Conserving and enhancing the natural environment'. Paragraph 180 of the NPPF states that when determining planning applications,

¹ Great Britain. *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019* No.579 [online]. Available from: <https://www.legislation.gov.uk/ukdsi/2019/9780111179512/contents>

² Great Britain. *Wildlife and Countryside Act 1981* [online]. Available from: <http://www.legislation.gov.uk/ukpga/1981/69/contents>

³ Great Britain. *Natural Environment and Rural Communities Act 2006* [online]. Available from: <http://www.legislation.gov.uk/ukpga/2006/16/contents>

⁴ Great Britain. *National Planning Policy Framework (2021)*. Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

local planning authorities should apply the following principles:

- If significant harm to biodiversity 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.
- Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest.
- 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.
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Reading Borough Local Plan

The Reading Borough Local Plan was adopted in 2019 and sets out planning policy in the area up until 2036. Policy EN12 related to biodiversity and the Green Network and states

“a) The identified Green Network, the key elements of which are shown on the Proposals Map, shall be maintained, protected, consolidated, extended and enhanced. Permission will not be granted for development that negatively affects the sites with identified interest or fragments the overall network. The Green Network comprises:

- *Sites with identified biodiversity interest - Local Wildlife Sites, Local Nature Reserves, Biodiversity Opportunity Areas, protected and priority species and their habitats, Priority and Biodiversity Action Plan habitats, and the River Thames and all its tributaries (including the River Kennet and the Kennet & Avon Canal); and*

- *Areas with potential for biodiversity value and which stitch the Green Network together – designated Local Green Space and open green spaces, and existing and potential Green Links.*

New development shall demonstrate how the location and type of green space, landscaping and water features provided within a scheme have been arranged such that they maintain or link into the existing Green Network and contribute to its consolidation. Such features should be designed to maximise the opportunities for enhancing this network. All new development should maximise opportunities to create new assets and links into areas where opportunities are as yet unidentified on the Proposals Map.

b) On all sites, development should not result in a net loss of biodiversity and geodiversity, and should provide a net gain for biodiversity wherever possible. Development should:

- *Protect and wherever possible enhance features of biodiversity interest on and adjacent to the application site, incorporating and integrating them into development proposals wherever practicable; and*

- *Provide new tree planting, wildlife friendly landscaping and ecological enhancements (such as wildlife ponds, bird and bat boxes) wherever practicable. In exceptional circumstances where the need for development clearly outweighs the need to protect the value of the site, and it is demonstrated that the impacts cannot be:*

1) avoided;

2) mitigated or;

3) compensated for on-site;

then new development will provide off-site compensation to ensure that there is “no net loss” of biodiversity. Provision of off-site compensation shall be calculated in accordance with nationally or locally recognised guidance and metrics. It should not replace existing alternative habitats, and should be provided prior to development.”

4 METHODOLOGY

Scope of assessment

- 4.1. The EcIA focuses on 'important ecological features', i.e. those which are considered to be of relevance to the decision-making process and could be affected by the proposed development. Important ecological features include protected species, habitats/species of 'principal importance' for biodiversity conservation (i.e. Section 41 habitats/species⁵), birds of conservation concern⁶, invasive non-native plant species⁷, and habitats and species identified as priorities for conservation in the local plan.

Zone of influence

- 4.2. The 'zone of influence' (ZOI) is the area over which important ecological features (on-site or off-site) may be affected as a result of the proposed development and associated activities. The ZOI can vary for different ecological features, depending on their sensitivity to environmental change.
- 4.3. The ZOI for statutory designated sites has been informed by Natural England's Sites of Special Scientific Interest (SSSIs) Impact Risk Zones⁸ (IRZs). IRZs define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts. This has been determined as part of the desk study, as discussed below.

Desk Study

- 4.4. The following information was requested from Thames Valley Environmental Records Centre (TVERC) for a search area of 2km around the Application Site boundaries/central grid reference of the Application Site:

- Notable/Protected Species

⁵ Section 41 (41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st October 2006, requires the Secretary of State to publish a list of habitats and species which are of principle importance for the conservation of biodiversity in England.

⁶ Red list species are those that are globally threatened, whose population or range has declined rapidly in recent years (i.e. by more than 50% in 25 years), or which have declined historically and not recovered. Amber list species are those whose population or range has declined moderately in recent years (by more than 25% but less than 50% in 25 years), those whose population has declined historically but recovered recently, rare species (<300 breeding pairs or <900 wintering individuals), those with internationally important populations in the UK, those with localised populations, and those with an unfavourable conservation status in Europe. Species that meet none of these criteria are Green-listed.

⁷ Invasive non-native plants (Section 14) on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended).

⁸ Natural England (June 2019). Natural England's Impact Risk Zones for Sites of Special Scientific Interest (For use by Local Planning Authorities to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites and determine when to consult Natural England).

- Non-statutory Designated Sites
- Invasive/non-native species

4.5. The data was received on 23rd February 2023.

4.6. The MAGIC website⁹ was used to carry out a 5km data search for SSSIs, Special Protection Areas (SPAs) and Special Areas of Conservation (SACs) with an IRZ that falls within the Application Site, in February 2023.

Field surveys

4.7. An Extended Phase 1 Habitat Survey, with reference to UK Habitat Classification was undertaken on the 27th February 2023 by Hayley Roberts and Ryan Yeates of ACD Environmental. This included habitats on the Application Site itself and immediately adjacent to the boundary. Survey methodology was informed using JNCC (2010) and UK Habitat Classification guidance. During the survey the weather was dry, the temperature was 7°C, with 100% cloud cover.

4.8. A bat emergence survey was undertaken on 16th May 2023, with a surveyor covering each feature with potential to support roosting bats. Each surveyor was equipped with an Anabat Scout detector recording in full spectrum. The survey commenced 20 minutes before sunset and finished an hour and a half after sunset. Weather data for the survey is in Table1 below.

Table 1: Weather data during the bat emergence survey

Date	Start Time	End Time
23 rd May 2023	Temperature (°c): 14 Wind Speed (Beaufort): 0-1 Cloud Cover (%): 20	Temperature(°c): 11 Wind Speed (Beaufort): 0 Cloud cover (%): 0

Limitations

4.9. The survey provides a snapshot of a habitat at any time, with the potential for further species to be present earlier or later in the year, which may not be detectable at other periods. It is also possible that environmental factors (e.g. drought, prolonged heavy rainfall, prolonged cold

⁹ Multi Agency Geographic Information for the Countryside [online]. Available at: <https://magic.defra.gov.uk/>

weather) may affect the development of many plant species with some flowering earlier or later than is typical. It is therefore possible that some species will have been missed in the botanical survey, however it is unlikely that minor omissions will significantly affect the assessment result given the habitat types present.

- 4.10. No limitations were associated with the bats emergence survey.

Assessment methodology

- 4.11. The habitats and species evaluations and likely effects are made with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment¹⁰.
- 4.12. The importance of ecological features has been assessed by carrying out a suite of specialist surveys to determine whether protected species/habitats, and/or species/habitats of conservation concern are present in the Application Site or its ZOI, then comparing their status at the international/national/county/regional/local scale, through the use of available contextual information, to establish the importance of those features in a geographical context.
- 4.13. The overall effect of the proposed development on a given feature has been predicted, considering the baseline data collected through desk study and field survey, and the various impacts expected to occur. An assessment has then been made as to whether the effect on each important ecological feature is likely to be significant or not.
- 4.14. Significance is the weight that should be attached to effects when decisions are made. For the purpose of EclA, a likely significant effect is an effect that either supports or undermines biodiversity conservation objectives for important ecological features (which could be species populations/groups of species, habitats, or a designated site), or for biodiversity in general. Effects have been considered significant at a wide range of scales, from national to local.
- 4.15. A sequential process has been adopted to avoid/mitigate, and if required, compensate for significant negative ecological effects. This is referred to as the 'Mitigation Hierarchy'. Avoidance includes measures to change the design of the proposed development to avoid an impact occurring. Mitigation includes measures to avoid or reduce the negative impacts of the proposed development. Compensation addresses significant negative residual effects (those likely to occur after avoidance and mitigation have been considered). It is this objective of compensation, and not its location, that distinguishes compensation from 'mitigation'.

¹⁰ CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater and Coastal, Version 1.1. updated September 2019. Chartered Institute of Ecology and Environmental Management, Winchester.

- 4.16. In EclA, it is only essential to assess and report significant residual effects that remain after mitigation measures have been taken into account. However, the potential significant effects without mitigation as well as the residual significant effects following mitigation have been presented where the mitigation proposed is experimental, unproven or controversial and/or to demonstrate the importance of securing the measures proposed through planning conditions or obligations.

Valuation

- 4.17. The value of important ecological features (sites, habitats and species) is assigned according to their scale of importance using the following terms:

- International importance – ecological features of international importance such as SPAs and SACs, and/or sites that support internationally-important populations of species.
- National importance – ecological features of national importance such as SSSIs, features which meet the criteria for designation as a SSSI, and/or sites that support nationally-important populations of certain species.
- Regional importance – ecological features of regional importance, such as a species population that is of importance at a scale greater than the County, but does not meet the criteria for National Importance
- County importance – ecological features of county-scale importance, including features that have been designated as local wildlife sites, or meet the criteria for designation as a local wildlife site, and/or county-important populations of species
- Local importance – ecological features of local importance, including habitats or species populations listed as being of nature conservation importance (e.g. S41, local BAP, or listed in local planning policy) which are not considered to be of County importance by virtue of the quality, size/number, rarity, the extent to which they are threatened throughout their range, or to their rate of decline.

Precautionary principle

- 4.18. The evaluation of significant effects is based on the results of the ecological surveys carried out in the Application Site and other available evidence. In cases of reasonable doubt, where

it is not possible to robustly justify a conclusion of no significant effect, a significant effect is assumed. Where uncertainty exists, it has been duly acknowledged.

5 BASELINE ECOLOGICAL CONDITIONS

Context

- 5.1. The Application Site is a small complex of community buildings and associated land located at 163 Northcourt Avenue which itself sits within an urban area in Whitely, Reading RG2 7HG. Residential developments abut the Application Site on all sides with the A327 beyond the housing to the east. Habitats onsite are dominated by buildings and hardstanding, with a small area of modified/amenity grassland and three scattered trees present.

Designated Sites

- 5.2. Statutory designated sites within 5km of Application Site are shown in Table 2. All such sites in this case are Local Nature Reserves (LNR's), which are designated for peoples enjoyment of nature.

Table 2: Statutory designated sites with an IRZ within the Application Site

Name of statutory designated sites	Approximate distance and direction from Application Site	Reason for designation	Scale of importance
Maiden Erlegh Park LNR	1.4km east	Lowland mixed deciduous woodland and eutrophic standing water	County
Pearmans Copse LNR	1.6km south	Ancient broad leaf woodland.	County
Highwood LNR	2.2km north east	Mixed woodland with heathland area	County

- 5.3. The Application Site is sufficiently separated from these designated sites to confidently avoid impacts resulting from its redevelopment, in addition to its type of use remaining unchanged with no change in volume of users anticipated.
- 5.4. Local (non-statutory) wildlife sites within 2km of the Application Site are shown in Table 3.

Table 3: Local wildlife sites within 2km of the Application Site

Name of Local Wildlife Site	Approximate distance and direction from the Application Site	Nature Conservation Interest	Scale of importance
The Cowsey	0.35km south west	Large ancient semi-natural woodland with three seasonal ponds	County
Whiteknights Park	0.7km east	Comprises a mix of lakes, woodland and meadows.	County
Whitely Park Farm/St Patricks Hall Pond	0.7km north	Woodland and pond	County
Redhatch Copse	0.75km south east	Block of ancient woodland	County
Maiden Erlegh Woods	1.7km east	Woodland associated with Maiden Erlegh Lakes.	County
Fobney and Kennet Valley Meadows	1.79km west	Wetland and meadows important for breeding birds.	County
River Kennet and Avon Canal	1.79km west	Tributary of the reiver Thames cited as being an important chalk stream.	County

- 5.5. The Application Site is sufficiently separated from the sites identified in Table 2 to avoid impacts as a result of development proposals.

Habitats

- 5.6. Habitats are listed in alphabetical order. All the features described are shown on the UKHab Map in Appendix 1.

Buildings and Hardstanding (sealed surface)

- 5.7. The Application Site is dominated by a community building (B1) used as the headquarters for the Scouts and Guides in Reading. The building itself is broadly U-shaped. The northern half comprises a single-skinned brick-built building which largely lacks loft voids, though two small voids were noted in its western extent which were draughty and cold in temperature. The roof

was double pitched, unlined and comprises corrugated sheets likely comprised of concrete and asbestos.

- 5.8. The southern half of the building supported timber cladding to the walls, though it was unclear of the construction type beneath. The cladding appeared in a semi-degraded condition, though only minor lifting had occurred with small gaps beneath the timber (Photograph 1). The roof was double pitched with no roof void present and was covered with roofing felt.
- 5.9. To the east of B1 was a single storey storage building (B2) comprised of non-standard building materials (likely prefabricated concrete) with pebbledash appearance. This building has a flat roof with no gaps visible.
- 5.10. Hardstanding was present to the front and rear of the property comprising an asphalt car parking area and patio respectively. The space within the 'U' of the building comprises raised decking covered by a clear plastic roof.
- 5.11. The buildings and hardstanding provide no intrinsic ecological value, however their value with respect to protected species will be discussed in the relevant sections below.



Photograph 1: weather damaged cladding beginning to lift.

Modified Grassland

- 5.12. To the rear of B1 was a small grassland used for amenity purposes. The grassland is categorised as a modified grassland in poor condition due to supporting fewer than eight species per meter squared with significant signs of wear and trampling with significant areas

of bare ground. The grassland is species-poor and provides little intrinsic ecological value. Species present included perennial rye grass *Lolium perenne*, common daisy *Bellis perennis*, daffodils *Narcissus* sp., common cats ear *Hypochaeris radicata*, ribwort plantain *Plantago lanceolata*, creeping buttercup *Ranunculus repens*, bulbous buttercup *Ranunculus bulbosus* and green alkanet *Pentaglottis sempervirens*.

- 5.13. The grassland is of importance within the zone of influence only, which in this case is limited to the Application Site itself.

Scattered Trees

- 5.14. The Application Site supported a total of three mature trees situated in the eastern boundary. These trees comprised two oak *Quercus robur* and one sycamore *Acer pseudoplatanus* (Photograph 2). These oaks are mature trees with scattered deadwood throughout the canopies and appear to be in good condition. These trees are of local value.
- 5.15. Several smaller shrubbier trees are also present in the south west corner of the Application Site. These comprise one blackthorn *Prunus spinosa*, a sycamore, holm oak *Quercus ilex* and a *Hottonia* sp. These trees are of no more than site level importance.



Photograph 2: Oak trees at the eastern boundary of the Application Site

Ornamental bed

- 5.16. To the south of the building is a mixed area of ornamental planting with areas of vegetable cultivation. This bed supported a range of both native and non-native species including primrose *Primula vulgaris*, green alkanet, dovesfoot cranesbill *Geranium molle*, domestic carrot *Daucus carota sativus*, mint *Mentha* sp., rosemary *Salvia rosmarinus*, ornamental geranium *Geranium* sp., violets *Viola* sp., stonecrop *Sedum* sp., cleavers *Galium aparine*, strawberry *Fragaria* ap., rhubarb *Rheum x hybridum*, spurge *Euphorbia* sp., purple toadflax *Linaria purpurea*, field woodrush *Luzula campestris*, grape hyacinth *Muscari* sp., and ornamental rose *Rosa* sp..
- 5.17. The ornamental bed provides some biodiversity opportunities however this is limited due to its largely non-native status and is considered to be of importance within the zone of influence, which in this case is limited to the Application Site.

Single-species hedgerow

- 5.18. The garden of the Application Site is bounded to the north and south with single species hedgerows comprising privet *Ligustrum* sp. cultivars. These hedgerows stand at approximately

1.5m tall and 1m wide and provide little intrinsic biodiversity value. The value of these hedgerows with respect to protected species is discussed separately below.

5.19. The hedgerows are of value within the zone of influence only.



Photograph 3: Ornamental bed with some vegetables growing

Plants (including invasive non-native species)

5.20. The ornamental bed to the south of the building was found to support a single plant of variegated yellow archangel *Lamium galeobdolon argentatum*. Variegated yellow archangel is listed as a Schedule 9 invasive species which spreads rapidly via stoloniferous growth and produces approximately 800 seeds per plant. The plant has not yet spread within the Application Site, however it is recommended that this is removed by invasive species specialists to prevent its spread onsite or to offsite habitats.



Photograph 4: Variegated yellow archangel in the ornamental bed at the south of the Application Site.

Amphibians

- 5.21. The data search with TVERC returned no records of great crested newts within 2km of the Application Site.
- 5.22. Whilst no records of great crested newts were returned, records of more widespread amphibians were identified in the data search including 18 records of common frog *Rana temporaria*, 21 records of common toad *Bufo bufo* and 11 records of smooth newt *Lissotriton vulgaris*. These records were typically clustered around Reading University Whiteknights campus and Maiden Erlegh LNR, both of which are separated from the Application Site by major roads and residential areas.
- 5.23. The Application Site itself does not support any waterbodies, with one known waterbody identified within 500m of the Application Site boundary (300m to the east within the grounds of Leighton Park School). However, this pond is separated from the Application Site by a busy A-road which acts as a significant barrier to dispersal which it is reasonably unlikely that amphibians will disperse across successfully.
- 5.24. Further to this, terrestrial habitats for these species typically comprise rough grassland, woodland and hedgerows with opportunistic use of brash piles. The Application Site supports no woodland, and the grassland onsite is considered unsuitable as it provides very little cover for commuting amphibians and limited foraging opportunities due to frequent trampling as a

result of its use as a playground and high proportion of bare ground cover. The only habitat of any potential value onsite is the boundary vegetation, however this is not affected by development proposals.

- 5.25. Based on the points discussed above, the proposed redevelopment of the Application Site is highly unlikely to impact amphibians which are scoped out of the assessment and will not feature further in this report.

Reptiles

- 5.26. The data search returned a total of four records of reptiles within 2km of the Application Site dating from between 2007 and 2014 comprising two observations of slow worm *Anguis fragilis* and two observations of grass snake *Natrix Helvetica*. These reptiles were located approximately 1.9km to the south east of the Application Site within a LWS, which is separated from the Application Site by significant urban developments with little natural connectivity. Dispersal to the Application Site is therefore considered to be highly unlikely.
- 5.27. Further to the above, the Application Site itself does not comprise habitats capable of supporting these species, with no tussocky grassland present and no other features of potential value e.g. compost heaps. Reptiles are considered likely absent and will not feature further in this report.

Birds

- 5.28. The data search with TVERC returned numerous records of birds within 2km of the Application Site. Species present with potential to be supported by habitats on the Application Site included wren *Troglodytes troglodytes*, wood pigeon *Columba palambus*, willow warbler *Phylloscopus trochilis*, whitethroat *Curruca communis*, swift *Apus apus*, stock dove *Columba oenas*, starling *Sturnus vulgaris*, spotted flycatcher *Muscicapa striata*, song thrush *Turdus philomelos* and house sparrow *Passer domesticus*.
- 5.29. The Application Site sits within a densely populated urban area, with few records of rare or notable species in the vicinity. Onsite habitats are not without value to common species of garden birds with potential for boundary vegetation to support nesting and foraging, however it is considered highly unlikely that it is capable of supporting rarer or more sensitive species with more complex habitat requirements. Given this, no further survey of breeding or wintering birds is required, however sensitive methods of work will be required to ensure no impacts on nesting birds occur during the construction phase of any development going forwards.
- 5.30. The Application Site is considered of be of value within the zone of influence with respect to

nesting birds, and they will be discussed further in the relevant section below.

Bats

- 5.31. The data search returned numerous records for bats within 2km of the Application Site including observations of common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle, *Pipistrellus pygmaeus*, Nathusius's pipistrelle *Pipistrellus nathusii*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus*, Natterer's bat *Myotis nattereri*, Daubenton's bat *Myotis daubentonii* and brown long eared *Plecotus auritus*. These observations comprised a mix of bat detector recordings and roost sites, therefore bats are known to be present in the wider area.
- 5.32. The Application Site does not feature any loft voids suitable for free hanging and cavity dwelling species. Only two very small voids were noted onsite, and both of these were unlined, draughty and likely subject to significant temperature fluctuations. No droppings or other evidence of bats was visible in either void, which are both considered unsuitable for roosting bats.
- 5.33. Wood cladding was noted on the southern half of the building which has begun to lift as a result of weather damage on the southern and eastern elevations. These provide approximately three access points which could be used by small numbers of roosting bats, though at the time of the initial survey these were well cobwebbed with no evidence of use. The building was categorised as having low potential to support roosting bats, particularly crevice dwelling species such as pipistrelles which are well documented in the wider area. Therefore, one emergence survey was undertaken in May 2023 in line with published guidance¹¹.
- 5.34. The survey returned no emergences from any of the features of potential value, which at the time of the emergence survey remained heavily cobwebbed with no evidence of use. Shortly after sunset a series of four soprano pipistrelles passed in close succession (2-4 minutes apart) from the front of the building, along the northern boundary heading offsite to the east. Given this, a roost is considered likely to be offsite, but nearby in the wider area. Sensitive lighting will be sufficient to protect these bats.

Hazel Dormouse

- 5.35. No observations of hazel dormouse *Muscardinus avellanarius* were returned in the data search, with no habitat present on the Application Site suitable for supporting this species. No connectivity between the Application Site and offsite woodlands or hedgerow networks can be identified by aerial mapping, therefore this species is considered to be likely absent.

¹¹ Collins, J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

- 5.36. Hazel dormouse will not be considered further in this report.

Badgers

- 5.37. The data search returned a total of 20 records of badgers *Meles meles* within 2km of the Application Site dating from between 2010 and 2020. The nearest recorded badger sett is approximately 1km from the Application Site, however the exact location is withheld due to the sensitive nature of the data. Badgers are therefore present in the wider area.
- 5.38. No evidence of badger activity was observed on the Application Site, including setts, snuffle holes, push throughs, latrines or badger hairs. Given this, the dense residential and commercial use of the wider area with limited greenspace it is considered unlikely that badgers are using the Application Site.
- 5.39. Whilst badgers are considered to be likely absent, general measures will be implemented during construction works to protect badgers and other mammals which might pass through. The Application Site is of negligible value to badgers, and they will not be considered further in this report.

Other mammals

- 5.40. The data search results indicated that European hedgehog *Erinaceus europaea* is present in the area surrounding the Application Site, and a hedgehog was observed foraging along the southern boundary during the emergence survey.
- 5.41. Small excavations typical of digging by rabbits *Oryctolagus cuniculus* was observed adjacent to the northern boundary. No warrens were present onsite, however their presence should be kept in mind and general measures implemented to ensure they are protected from harm.
- 5.42. General measures will be implemented to protect mammals during construction activities.

6 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES

- 6.1. In accordance with CIEEM guidelines, the following important ecological features have been identified with the potential to be affected by the proposed development and carried forward for further assessment:

Table 4: Important ecological features brought forward for impact assessment

Statutory sites	N/A
Local Wildlife sites	N/A
Habitats	N/A
Species and species groups	Bats Nesting birds Invasive species

- 6.2. The following ecological features have been scoped out of the ecological impact assessment, owing to the conclusion that no significant effects are predicted:

Table 5: Ecological features scoped out of the impact assessment

Statutory sites	Sites listed in Table 1
Non-statutory sites	Sites listed in Table 2
Habitats	Buildings and Hardstanding Ornamental planting Scattered Trees
Species and species groups	Amphibians Badger Hazel dormouse Reptiles

Invasive Species

- 6.3. Variegated yellow archangel is a Schedule 9 invasive species and was identified within the mixed ornamental/vegetable plot to the south of the building. A single plant is currently present which has not yet spread further either onsite or offsite (where visible). Given its invasive nature this plant must be removed and disposed of appropriately to avoid facilitating its spread. It is recommended that an invasive species contractor is contacted for advice.
- 6.4. Provided this plant is successfully removed there will be a positive impact on biodiversity within the zone of influence.

Bats

- 6.5. The southern and eastern elevations of building 1 were identified as having low bat roosting potential beneath the wooden cladding which has begun to lift due to weather damage. It is anticipated that building 1 will be fully demolished to allow redevelopment to proceed.
- 6.6. Given the above, one bat survey was undertaken in May 2023 to determine whether or not bats are likely to be using the building, and to accurately assess the impact of the development proposals. During the survey no roosts were identified, therefore bat roosts are considered to be likely absent. As a precaution the identified features of potential value will be removed by hand. In the unlikely event that a bat is discovered work will stop and an ecologist contacted immediately.
- 6.7. A sensitive lighting scheme will be implemented to avoid increasing artificial lighting beyond existing levels to ensure the soprano pipistrelles commuting across the Application Site can continue to use the Application Site over the long term. This will include ensuring any lighting faces away from boundary vegetation, particularly the trees on the eastern boundary and the northern boundary where bats were observed commuting. Where external lighting is required, warm white (<3000K and >550nm peak wavelength) LED's are recommended to avoid the most disruptive wavelengths to bats and ensure a sharp cut off to minimise light spill. Cowls and louvres can also be used to help control light spill.
- 6.8. Lighting proposals will be informed by the most recent guidance by the Bat Conservation Trust and Institute of Lighting Professionals¹², and will be reviewed by an ecologist to ensure impacts are not generated by increased artificial lighting.

¹² Ferguson, F.R., Smith, N., Fox, H., (2018) *Bats and Artificial Lighting in the UK*. The Bat Conservation Trust, London

- 6.9. With the measure above implemented in full the impact on bats will be negligible.

Nesting Birds

- 6.10. The vegetation at the boundaries of the Application Site including the mature trees at the eastern boundary are capable of supporting nesting and foraging behaviours of widespread species of garden birds.
- 6.11. It is not expected that any vegetation will be removed under current plans therefore impacts relating to disturbing or destroying nests are unlikely to occur. However, if this changes vegetation clearance will be avoided during the main nesting season which is widely accepted to be March to August inclusive. Where this is not possible the vegetation to be cleared must first be checked for nesting birds by a suitably experienced ecologist. If a nest is discovered the ecologist will establish a suitably sized buffer around the nest. No work will be carried out inside the buffer and construction traffic and machinery must be kept at a distance no less than 10m. Work may only resume once the ecologist confirms the nest is no longer in use.
- 6.12. With the mitigation above implemented in full the development will have a negligible impact on nesting birds over the long term, with short term non-significant adverse impacts due to noise and vibration from construction activities.

Enhancements

- 6.13. 2no. integrated swift boxes will be installed as high as possible in the new building, ensuring access to the box is not obscured by vegetation.
- 6.14. With the mitigation implemented in full the impact of the development on nesting birds will be negligible.

General Measures

6.15. Good practice working methods must be implemented to ensure the protection of any wildlife which might enter the Application Site during the course of the development. These general measures include the following:

- Excavations should be closed or covered overnight to avoid trapping any animals which might fall in. Where this is not possible a means of escape must be provided e.g. roughened wooden plank set up as a ramp.
- Excavations must be managed to avoid the formation of temporary waterbodies.
- Any chemicals and food must be stored in sealed containers in areas inaccessible to wildlife.
- Any temporarily exposed piping must be capped when not actively being worked on to avoid animals entering and later becoming trapped.
- Building materials must be stored on pallets where possible.

7 BIODIVERSITY NET GAIN

Biodiversity metric

- 7.1. The Biodiversity Metric 3.1 has been completed for the Application Site. This has been calculated using baseline habitat and species information collected during the Extended UK Habitat Classification Survey and using post-development indicative landscape proposals. A full methodology is provided in **Appendix 4**. A completed version of the Biodiversity Metric 3.1 and the condition sheets have been submitted in full as a separate Excel document, and PDF sheets respectively.

Table 6: A summary of the results of the Biodiversity Metric.

On-site baseline	Habitat units	0.18
	Hedgerow units	0.09
	River units	0
On-site post-intervention	Habitat units	0.22
	Hedgerow units	0.09
	River units	0
Total net unit change	Habitat units	0.04
	Hedgerow units	0.00
	River units	0
Total net % change	Habitat units	23.3%
	Hedgerow units	0%
	River units	0%

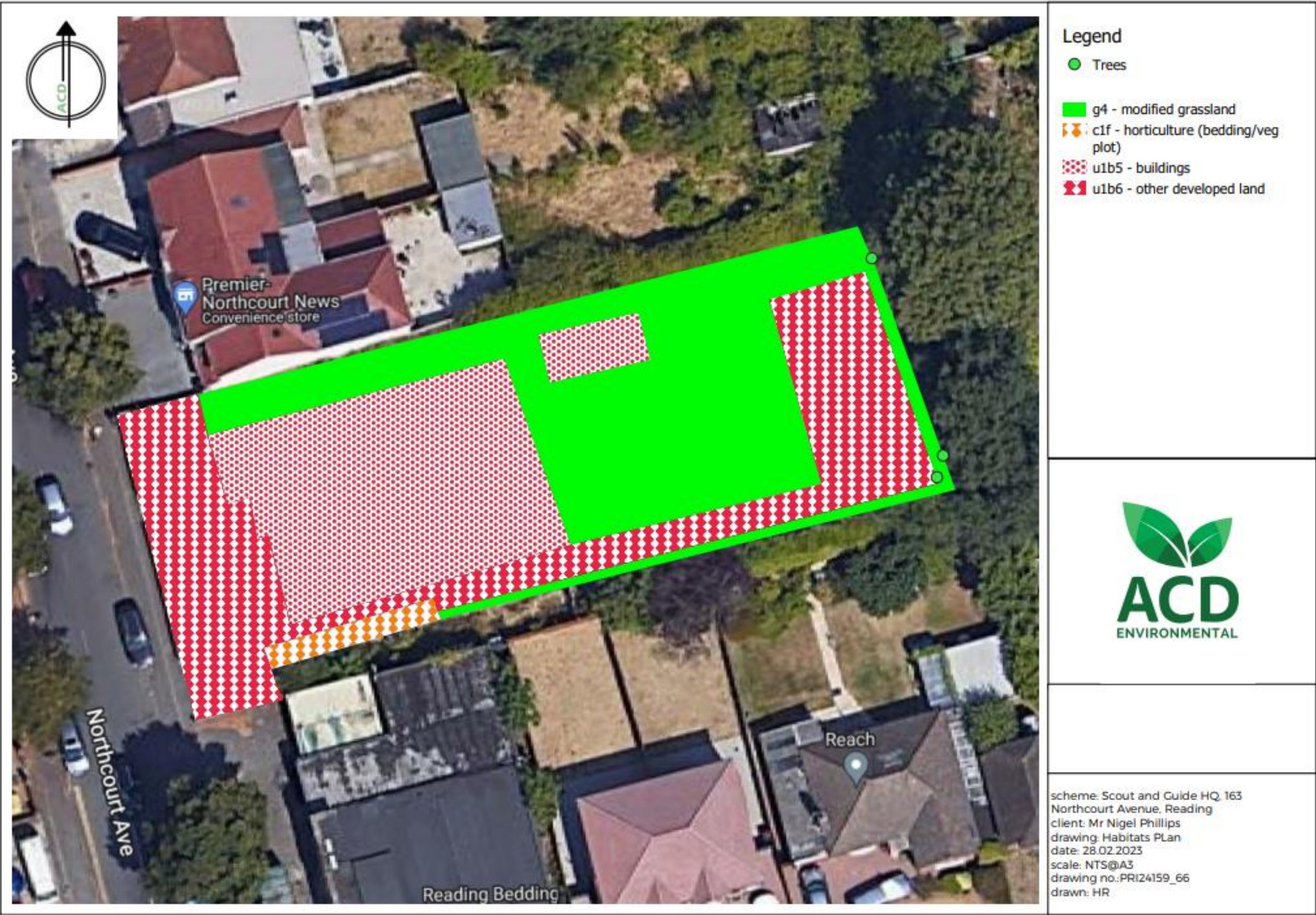
- 7.2. The results of the Biodiversity Metric indicate that development of the Application Site will lead to a 23.3% net gain with respect to habitats and 0% with respect to hedgerows. This is predominantly due to enhancement measures to improve the grassland quality and planting of new trees.
- 7.3. The following habitat and hedgerow enhancement and creation measures have been incorporated within the landscape masterplan and are included within the Biodiversity Metric 3.1 calculations. For details on locations of these habitats please refer to the habitat creation plan which is presented within **Appendix 2**.
- E.g. Inclusion of a hedgerow meadow grassland mixture at the southern boundary the to create a small section of modified grassland.
 - E.g. Inclusion of 9no. new trees within the planting schedule, mostly located within the southern boundary.

- 7.4. The above measures are considered to be a significant contribution to the overall biodiversity value of the Application Site. If the above enhancements were delivered, the proposed development would deliver net biodiversity gains.

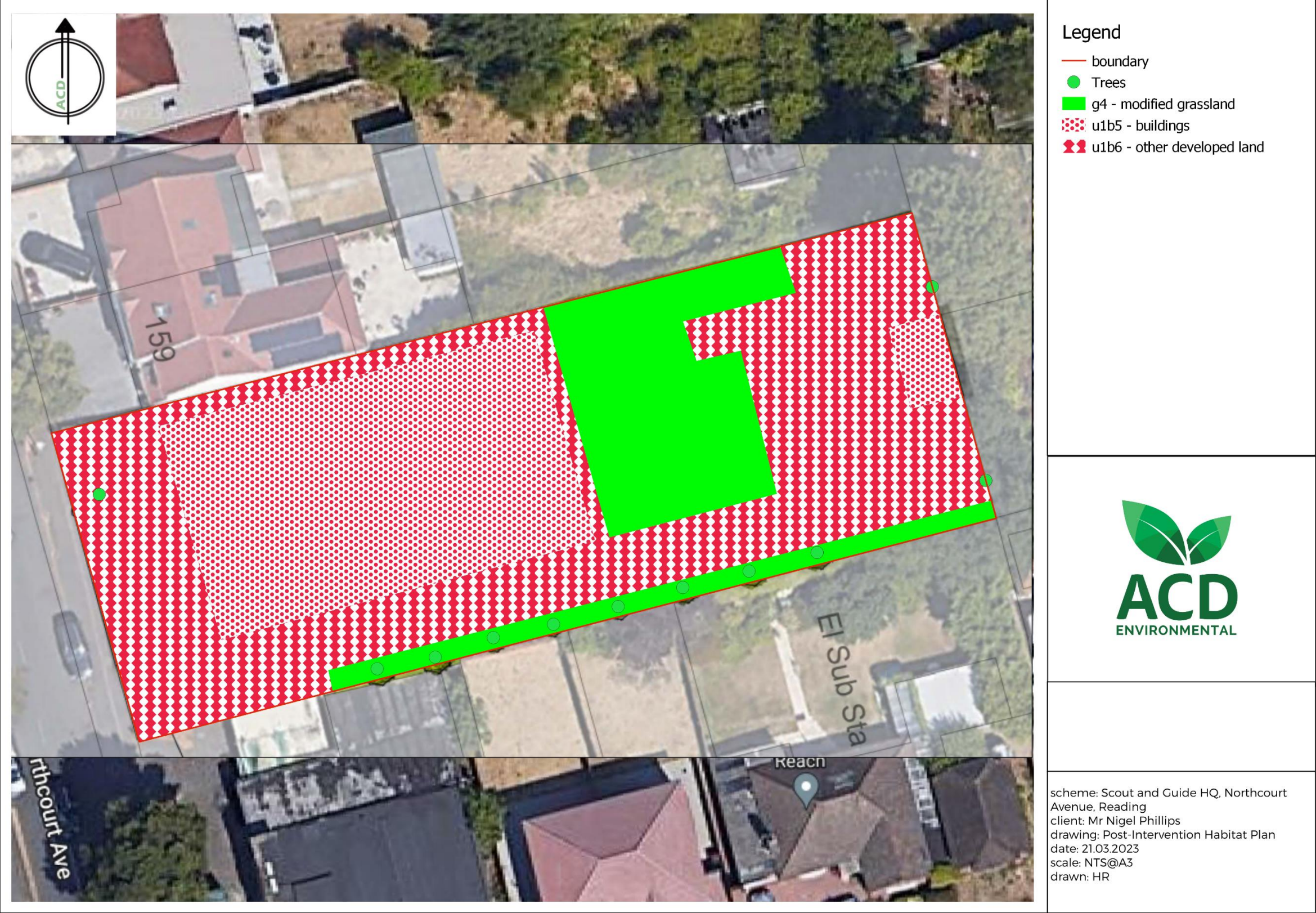
8 CONCLUSIONS

- 8.1. The Application Site will soon be subject to a planning application to allow the redevelopment of the existing structures to provide a new, more efficient building. This will continue to be used as the Scouts and Guides HQ.
- 8.2. The Application Site had low potential to support a bat roost beneath the wooden cladding of Building 1, however no bats were observed emerging during the survey undertaken in May 2023. As a precaution the features identified as having potential to support a roost will be removed by hand. A sensitive lighting scheme will also be implemented to ensure commuting bats can continue to use the Application Site over the long term.
- 8.3. Common species of nesting bird may be present. Vegetation to be removed will be cleared in the winter months where possible, however where this is not possible, it will be subject to nesting bird checks by an ecologist prior to works being undertaken.
- 8.4. The Schedule 9 invasive plant species variegated yellow archangel was identified onsite and must be cleared. Advice from an invasive species specialist is recommended.
- 8.5. The proposed mitigation includes measures to ensure compliance with the legislation relating to protected species and invasive non-native plant species.

APPENDIX 1: UKHAB Map



APPENDIX 2: POST INTERVENTION HABITAT PLAN



APPENDIX 3: FIELD SURVEY METHODOLOGY

Extended Phase 1 Habitat Survey

The UK Habitat Classification Plan 1 is shown in Appendix 1.

The UK Habitat Classification Survey methodology¹³ was used to classify the Application Site into habitat types, as listed in the UK Habitat Classification Manual. Where appropriate, dominant species codes within habitat types were recorded. Descriptive target notes were used for particular areas of interest.

Incidental records of fauna were made during the survey and the habitats identified were evaluated for their potential to support legally protected species and species of Principal Importance.

Limitations

There were no significant limitations associated with the Extended UK Habitat Classification Survey.

Preliminary Bat Roost Assessment

A Preliminary Roost Assessment (PRA) was carried out¹⁴. This is an external and internal inspection survey, the purpose of which is to search for bats/evidence of bats and assess the likelihood of bats being present and the need for further survey and/or mitigation.

A systematic search was made of the building and the ground, especially below potential access points where present. Such features include windows sills, window panes, walls, tiles, weather boarding, lead flashing, eaves, behind surfacing materials and under tiles, and other cracks and crevices that provide protection from the elements. Such features are known to be used by roosting bats.

The internal inspection included searching for the following evidence of roosting bats:

- Roosting bats within crevices or free-hanging
- Bat corpses e.g. on the floor, in uncovered water (header) tanks or other containers in roof voids
- Bat droppings beneath roosting features
- Feeding remains e.g. moth/butterfly *Lepidoptera* spp. wings and beetle *Coleoptera* spp. wing casings

¹³ JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*. JNCC, Peterborough.

¹⁴ Collins J. (ed.) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*. The Bat Conservation Trust, London.

- Scratch marks and characteristic staining from urine and/or fur oil beneath roosting features e.g. on roofing timbers and walls within roof voids
- 'Clean' gaps associated with bat roosts
- Bat-fly *Nycteribiid* spp. pupal cases
- Droppings, corpses, feeding remains and/or bat-fly pupal cases beneath roof insulation, which indicates use by bats before the insulation was installed
- Clean swept floors, which may indicate evidence has been removed

The internal inspection included searching for the following features:

- Gaps within the structure of the roof e.g. mortise joints and junctions between roof timbers and between timbers and walls, and between the roof lining and roof covering
- Gaps within the structure of walls and potential access points to cavity or rubble-filled walls
- Gaps around the structure chimneys or within disused chimneys
- Suitable locations for free-hanging bats and/or night/feeding perches e.g. timber beams
- Gaps between lintels above windows or doors
- Light gaps in the roof indicating access points to the outside
- Cool areas suitable for torpor or hibernation e.g. cellars.

The following equipment was used for the bat survey:

- Binoculars
- Powerful torch to illuminate dark corners from the ground
- Ladder
- Collection pots and labels for corpses and droppings;
- Camera to record evidence and potential roosting sites; and
- Personal protective equipment (e.g. boots, gloves, helmet, mobile telephone).

In addition to the buildings, the trees were also searched for bats/evidence of bats and assessed for their potential to support roosting bats. The evidence of roosting bats searched for is detailed above with regard to buildings (e.g. bat droppings and feeding remains). The features of bats were searched for on the trees with reference to the three broad categories of Potential Roost Features (PRFs) and sub-categories of PRFs from the Bat Tree Habitat Key¹⁵.

Limitations

There were no limitations to the Preliminary Roost Assessment.

Bat Emergence Survey

A bat emergence survey was undertaken on 16th May 2023, with a surveyor covering each feature with potential to support roosting bats. Each surveyor was equipped with an Anabat Scout detector recording in full spectrum. The survey commenced 20 minutes before sunset and finished an hour and a half after sunset. Weather data for the survey is in Table1 below.

Table 1: Weather data during the bat emergence survey

Date	Start Time	End Time
23 rd May 2023	Temperature (°c): 14 Wind Speed (Beaufort): 0-1 Cloud Cover (%): 20	Temperature(°c): 11 Wind Speed (Beaufort): 0 Cloud cover (%): 0

There were no limitations associated with the bat emergence survey.

Bird nesting

Evidence of nesting birds recorded during the PRA and any incidental bird observations/birds heard were noted.

The assessment included searching for the following with regard to barn owl:

- Birds present - roosting or nesting within buildings/trees;
- Birds present - corpses;

¹⁵ Bat Tree Habitat Key 2018. *Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-care and Ecology professionals*. Exeter: Pelagic Publishing.

- Pellets - undigested feeding remains;
- Nests - formed on layers of degraded pellets;
- Droppings or 'liming' - often present on/below roosts such as roof timbers;
- Eggs - intact/broken or within nest/below nest; and
- Feathers - adult or natal down.

APPENDIX 6: BIODIVERSITY METRIC METHODOLOGY

Assessment Framework

For the purposes of this assessment, the Biodiversity Metric 3.1 (JP039) has been utilised.

The Biodiversity Metric 3.1 is accompanied by a 'Calculation Tool'. This was used to calculate the biodiversity units for the Application Site before (baseline) and after development. The User Guide¹⁶ has been followed.

Habitat Measurements

Baseline habitat measurements were carried out in line with the results of the Extended UK Habitat Classification Survey. Measurements were made using QGIS.

Proposed habitat measurements were taken from the indicative Masterplan.

Measurements were entered to the nearest 0.01ha.

Distinction Assessments

Habitats are assigned to distinctiveness bands automatically within the Metric. These are based on an assessment of the distinguishing features of a habitat or linear feature, including the consideration of species richness, rarity (at local, regional, national and international scales), and the degree to which a habitat supports species rarely found in other habitats.

The distinctiveness band of each habitat is preassigned in the Biodiversity Metric 3.1. The bands are based upon the UK Habitat Classification system. A combination of simple rules and professional judgement have been used to assign each habitat type to the appropriate distinctiveness band. The distinctiveness categories used are tailored to habitat type.

Distinctiveness Assessments are assigned according to **Table 9**.

Table 9: Distinctiveness Assessment

Category	Scores	Multiplier
Very High	8	Priority habitats as defined in Section 41 of the NERC Act that are highly threatened, internationally scarce and require

¹⁶ STEPHEN PANKS A, NICK WHITE A, AMANDA NEWSOME A, JACK POTTER A, MATT HEYDON A, EDWARD MAYHEW A, MARIA ALVAREZ A, TRUDY RUSSELL A, SARAH J. SCOTT B, MAX HEAVER C, SARAH H. SCOTT C, JO TREWEEK D, BILL BUTCHER E and DAVE STONE A (2022). *Biodiversity metric 3.1: Auditing and accounting for biodiversity – User Guide*. Natural England.
A – Natural England, B – Environment Agency, C – Department for Environment, Food and Rural Affairs, D – Treweek Environmental Consultants Ltd, E – eCountability Ltd

Category	Scores	Multiplier
		conservation action e.g. blanket bog
High	6	Priority habitats as defined in Section 41 of the NERC Act requiring conservation action e.g. lowland fens
Medium	4	Semi-natural habitats not classed as a Priority Habitat
Low	2	Habitat of low biodiversity value. Temporary grass and clover ley; intensive orchard; rhododendron scrub
Very Low	0	Little or no biodiversity value e.g. hard standing or sealed surface

Condition Assessments

Condition assessments for existing habitats can be found in a separate Excel document.

Strategic significance

The spatial location of a habitat is treated as a component of the quality of a habitat parcel in the same way as distinctiveness or condition. Strategic significance is used to determine whether the habitat is of increased importance due to its location.

Risk Factors

As part of any proposed habitat creation and restoration, risk factors must be taken into account to correct for disparity, delay or risk. These values are preassigned within the Biodiversity Metric 3.1 and take into consideration the following factors:

- Temporal risk; and
- Difficulty of creation and restoration.

Advance/delay in habitat creation takes into account any significant time difference in the creation of a habitat type. This time is measured in full years and is entered by the assessor.

Habitat creation in advance is rewarded by reducing the difficulty and temporal risk multipliers applied. This reflects the lower delivery risk - there is less risk of failure when a habitat is already making progress towards its target condition.

Any significant delay in the creation of a habitat type relative to loss of on-site habitats (e.g. due to phased developments and developments that temporarily require parts of the development site for construction purposes) is added to the pre-populated time to target condition and increases the effect of the risk multiplier accordingly.

Limitations

Although the Biodiversity Metric 3.1 is a valuable tool underpinned by ecological evidence, there are certain limitations that must be considered when applying the metric. The key principles and rules for the use of the Biodiversity Metric 3.1 have been followed at all times, in line with these limitations. Further detail is available within the Biodiversity Metric 3.1 User Guide¹⁶.



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