

Beswick Shopping Centre, Grey Mare Lane, Beswick, Manchester M11 3AJ

**ECOLOGICAL SURVEY AND ASSESSMENT
(including a Licensed Bat Survey)**

November 2021

[ERAP (Consultant Ecologists) Ltd ref: 2021-305]

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Document Control

Survey Type:	Surveyors¹	Survey Date(s)
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Reporting	Personnel	Date
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SUMMARY

- i. This ecological survey and assessment presents the ecological, biodiversity and nature conservation status of Beswick Shopping Centre, Grey Mare Lane, Beswick, Manchester M11 3AJ. The assessment was requested in connection with proposals to demolish the existing building and redevelop the site to a new sports centre with a spectator stand and offices with associated landscape planting and car parking.
- ii. This report presents the results of a desktop study, data search, extended Phase 1 Habitat Survey and a licensed bat survey carried out in September 2021. The scope of survey undertaken is appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.
- iii. The site comprises a single building and hard standing with landscape planting; the landscape planting is characterised by amenity grassland, planted trees and shrubs and ornamental hedgerows. An area of hard standing to the south-east of the building supports colonising ruderal herbs. Note that the car park and landscape planting to the east of the building and the amenity grassland playing field to the west of the building will be unaffected by the proposed development, which will be centred on the existing building and the area of hard standing (with colonising ruderal herbs) to its south-east.
- iv. The proposals will have no adverse effect on statutory or non-statutory designated sites for nature conservation.
- v. The site contains only common and widespread plant species. None of the habitats within the site are of significant interest in terms of their plant species composition. None of the habitats present are representative of semi-natural habitat. The NVC communities present are typical of the geographical area and conditions present. No habitats within the site are Priority Habitat.
- vi. The landscape planting trees and shrubs are of 'site' value (in terms of their geographical context). The development proposes to retain and protect the trees and shrubs.
- vii. No invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected.
- viii. The building is considered to be of 'negligible' suitability for use by roosting bats; no further surveys are required in respect of roosting bats. None of the trees support any features suitable for use by roosting bats, and the presence of roosting bats at the site is reasonably discounted. Measures to ensure the retained landscape planting remain suitable for use by foraging and commuting bats (in respect of appropriate lighting) are presented at **Section 5.3**.
- ix. The trees, shrubs and building support features suitable for use by nesting birds (although no sign of nesting birds was detected at the building). Measures for the protection of nesting birds are presented at **Section 5.4** below.
- x. No other protected species have been detected.
- xi. The recommendations in **Section 5.0** outline all the mandatory measures and additional actions to be applied to ensure compliance with wildlife legislation, the National Planning Policy Framework (NPPF) and best practice.
- xii. The proposals will secure an opportunity to implement beneficial measures such as habitat creation that will safeguard habitats for wildlife such as birds and bats, with the aim of providing a net gain in biodiversity in accordance with the principles of the NPPF.
- xiii. It is concluded that the proposals are feasible and acceptable in accordance with ecological considerations and relevant planning policy. Redevelopment at the site will provide an opportunity to secure ecological enhancement for wildlife associated with suburban areas.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by MD Bear Maximum Ltd to carry out an ecological assessment of Beswick Shopping Centre, Grey Mare Lane, Beswick, Manchester M11 3AJ (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the 0.9 hectare site is SJ 87095 97818. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested in connection with a planning application to demolish the building and redevelop the site to a new sports centre with a spectator stand and offices with associated landscape planting and car parking.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in September 2021 comprised:
- A desktop study and data search for known ecological information at the site and the local area;
 - An Extended Phase 1 Habitat Survey and assessment;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including badger (*Meles meles*), bird species and reptiles;
 - A licensed daylight bat survey of the building and trees;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required prior to the commencement of any construction activities.

2.0 METHOD OF SURVEY

2.1 Desktop Study and Data Search

- 2.1.1 The following sources of information and ecological records were consulted:
- MAGiC: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
 - Greater Manchester Local Record Centre (GMLRC); and
 - Greater Manchester Biodiversity Action Plan (BAP).

¹ In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no ponds within 500 metres of the site, and no ditches or watercourses within or in proximity to the site; there has therefore been no requirement to consider great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) as part of this assessment.

2.2 Vegetation and Habitats

- 2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Brian Robinson B.Sc. (Hons) and Rachel Platt B.Sc. (Hons) M.Sc. on 30th September 2021. The weather was sunny with light cloud and occasional showers, a light air (Beaufort scale 1) and with an air temperature of 10°C at midday.
- 2.2.2 A habitat and vegetation map was produced for the site and the immediate surrounding area at a scale of 1:750 (refer to **Figure 2**). The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.
- 2.2.3 On site habitat mapping was assisted via use of GPS technology and QField on-site mapping software, using *Grey Mare Lane, Kirkstead Close, Manchester M11 3SW, Drawing No. CUR 230621 050* (Discovery Surveys Ltd, 2021) as a base plan.
- 2.2.4 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.
- 2.2.5 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.
- 2.2.6 Habitats within the site were assessed in accordance with the UK Habitats Classification / UKHab (Butcher, et al., 2020). The UKHab has been designed to function at two scales: fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length is appropriate.
- 2.2.7 Hedgerows were assessed in accordance with *The Hedgerows Regulations 1997* wildlife and landscape Criteria (H.M.S.O., 1997).
- 2.2.8 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.9 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 The survey area for badger covered the site (as annotated on **Figure 2**) and extended to accessible land within a radius of 50 metres from the site boundary. Private gardens / land were excluded from the survey.
- 2.3.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: surveys and mitigation for development projects* (Natural England, 2015).
- 2.3.3 The following signs of badger activity were searched for:
 - a. Setts entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;

- b. Large spoil heaps outside sett entrances;
- c. Bedding outside sett entrances;
- d. Badger footprints;
- e. Badger paths;
- f. Latrines;
- g. Badger hairs on fences or bushes;
- h. Scratching posts; and
- i. Signs of digging for food.

2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Bat Species

Daylight Survey

Survey Personnel

- 2.3.5 The site was assessed for its suitability to support roosting bats by Brian Robinson, Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-13161-CLS-CLS.
- 2.3.6 The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

Building

- 2.3.7 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)* (Collins, J. (ed), 2016).
- 2.3.8 An inspection of the external surfaces, walls and roof of the building was carried out to find potential bat roosting habitat or accesses into internal areas where roosts may be present. Searches for evidence of bat presence in the form of droppings, urine stains, feeding signs, grease marks and other evidence were also carried out.
- 2.3.9 The internal survey involved an examination of the accessible internal areas (including roof voids) to find roosting bats or evidence of past use of the building by bats such as droppings and prey remains.
- 2.3.10 A list of equipment used is detailed at **Table 2.1**, below:

Table 2.1: Survey Equipment used during Daylight Bat Survey

Ladders
LED Lenser P14 torch
Panasonic DMC- FT1 digital camera
8x20 binoculars
Ridgid Micro Inspection Camera Borescope CA-100

- 2.3.11 The suitability of the building has been assessed in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016), taking into account any presence of gaps suitable for access by bats, features suitable for use by roosting bats within the building (including crevice dwelling species and species which can roost in the open in roof voids), and the suitability of the surrounding habitats for use by foraging and commuting bats.

Trees

- 2.3.12 A preliminary assessment of the trees within the site was conducted to assess their suitability for use by roosting bats, and to inform whether further surveys or precautionary measures were required.
- 2.3.13 Trees were assessed from the ground using binoculars and a high-powered torch. Each tree was searched for the presence of the following features:

Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (Hedera helix) with stem diameters in excess of 50mm and bat, bird or dormouse (Muscardinus avellanarius) boxes.

- 2.3.14 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).

Habitat Assessment for Commuting / Foraging Bats

- 2.3.15 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn)*, (Collins, J. (ed), 2016). Reference has been made to the categories and descriptions / examples, presented at **Table 2.2**, below.

Table 2.2: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Commuting Habitat	Foraging Habitat
Negligible	Negligible habitat features on site likely to be used by commuting bats.	Negligible habitat features on site likely to be used by foraging bats.
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to the surrounding landscape by other habitat.	Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.	Habitat that is linked to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape and is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. Habitats close to and connected to known roosts.	High-quality habitat that is well-connected to the wider landscape and is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Habitats close to and connected to known roosts.

Bird Species

- 2.3.16 Bird species observed and heard during the survey were recorded.
- 2.3.17 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

Reptile Species

- 2.3.18 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document '*Reptile Mitigation Guidelines*' (Natural

England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined below at **Table 2.3**.

Table 2.3: Important Habitat Characteristics for Reptiles

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

2.4 Survey and Reporting Limitations

- 2.4.1 The north-western external elevation of the building was inaccessible as this lies within school grounds; no access could be gained to this area. A detailed assessment of the internal area of the building at this elevation was possible however and it is considered that a reliable assessment of the suitability of the building for use by roosting bats has been possible.
- 2.4.2 No other survey limitations were experienced.
- 2.4.3 All measurements within this report are approximate only, and have been either measured (using QField) or estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC and Google Earth.

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977) and *Guidelines for the Selection of Biological SSSIs* (Bainbridge, et al., 2013). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).
- 2.5.3 Government advice on wildlife, as set out in the *National Planning Policy Framework* (Ministry of Housing, Communities and Local Government, 2021) and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species Regulations 2017*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and/or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study and Data Search

Designated Sites for Nature Conservation

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site is not and does not form part of any statutory designated site for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for the overlapping Rochdale Canal SSSI and Special Area of Conservation (SAC), located 3.7 kilometres to the north-east of the site and designated for their aquatic plant communities and population of Floating Water-plantain (*Luronium natans*). The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2021):
- Airports, helipads and other aviation proposals.
 - Any industrial / agricultural development that could cause air pollution, including industrial processes, livestock and poultry units with a floorspace greater than 500m², slurry lagoons and digestate stores greater than 750m² and manure stores greater than 3,500 tonnes.
 - General combustion processes greater than 50 megawatts energy input, including energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works and other incineration / combustion.
- 3.1.3 The proposals do not match any of the development categories which would require further consultation with Natural England in respect of potential risks from the proposed development to the statutory designated sites for nature conservation present in the wider area.

Non-statutory Designated Sites for Nature Conservation

- 3.1.4 The site is not and does not form part of any non-statutory designated site for nature conservation, named Sites of Biological Interest (SBIs) in Greater Manchester.
- 3.1.5 The site lies within 2 kilometres of four SBIs, the details of which are outlined below at **Table 3.1**.

Table 3.1: SBIs within 2 Kilometres of the Site

SBI Name	Distance and Direction from Site	Reasons for Designation
Ashton Canal (West)	0.75 kilometres to the north of the site	Canal (Fw3)
Bank Bridge Meadow	1.24 kilometres to the north of the site	Woodland (Wd1); Grassland (Gr2)
Clayton Vale	1.70 kilometres to the north-east of the site	Ponds (Fw2); Reedbed, Swamp & Fen (Fw2)
Rochdale Canal, Stott's Lane - Ducie Street Basin	1.78 kilometres to the north of the site	Canal (Fw3); Floating water plantain (GSG1)

- 3.1.6 The presence of the SBIs is considered further at **Section 4.2** below.

Priority Habitats Inventory

- 3.1.7 The Priority Habitats Inventory² was checked via MAGiC map. No Priority Habitats are reported for the site.

² A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Protected and Notable Species

- 3.1.8 At the time of writing data search information from GMLRC is pending.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.9 hectare site is located within a suburban area of Manchester and supports a single building, hard standing (with an area to the south-east of the building being colonising by ruderal herbs) and landscape planting, which is composed of amenity grassland, planted trees and shrubs and ornamental hedgerows.
- 3.2.2 The north-western site boundary is defined by the north-western elevation of the building (at its western end), fencing and an ornamental hedgerow, beyond which lies a playing field, buildings and hard standing. The eastern site boundary is defined by an ornamental hedgerow, beyond which lie amenity grassland, footpaths and a building. The southern site boundary is defined by an ornamental hedgerow, beyond which lies Bell Crescent and an area of derelict, previously developed land. The south-western site boundary is defined by fencing, beyond which lies an amenity grassland playing field.
- 3.2.3 A Phase 1 Habitat Survey map is appended at **Figure 2**, and can be referred to for all habitat descriptions. Photographs are appended at **Section 8.2**.

Building, Hard Standing and Hard Standing with Colonising Ruderal Herbs

- 3.2.4 The building does not support any significant plant assemblage and is described in detail in relation to its suitability for use by roosting bats at **Section 3.3** below.
- 3.2.5 Refer to **Photos 1** and **2**. The asphalt hard standing which characterises the majority of the site is largely devoid of vegetation at the functioning car park located to the east of the building. Note that this area will be unaffected by the proposed development.
- 3.2.6 The section of hard standing to the south-east of the building and the paving around the building itself are composed of asphalt with concrete paving stones and sections of concrete slab and compacted stone. These areas support colonising ruderal herbs characterised by occasional and locally frequent Butterfly-bush (*Buddleja davidii*), Perennial Rye-grass (*Lolium perenne*) and Yorkshire-fog (*Holcus lanatus*), occasional Canadian Fleabane (*Conyza canadensis*), Cock's-foot (*Dactylis glomerata*), Colt's-foot (*Tussilago farfara*), Groundsel (*Senecio vulgaris*) and Hedge Mustard (*Sisymbrium officinale*) and very locally frequent Annual Meadow-grass (*Poa annua*), Broad-leaved Willowherb (*Epilobium montanum*), Creeping Bent (*Agrostis stolonifera*) and Hawkweed species (*Hieracium* sp.). A plant species list is appended at **Table 8.1**.
- 3.2.7 The habitat is described by the UKHab as u1b6 other developed land with the following secondary codes: 17 ruderal / ephemeral. The vegetation is not typical of any NVC community.

Landscape Planting

- 3.2.8 Refer to **Photos 3** to **5**. The landscape planting supports areas of planted trees and scrub and areas of amenity grassland. The planted trees and scrub are characterised by young to semi-mature occasional and locally frequent Norway Maple (*Acer platanoides*), Sycamore (*Acer pseudoplatanus*) and Beech (*Fagus sylvatica*) with occasional Hawthorn (*Crataegus monogyna*) and Butterfly-bush and locally abundant Swedish Whitebeam (*Sorbus intermedia*) and Lime species (*Tilia* sp.). Beech hedgerows are present at the eastern and south-eastern site boundaries.
- 3.2.9 The ground flora is characterised by frequent Perennial Rye-grass with occasional and locally frequent Red Fescue, Hawkweed species, Yorkshire-fog, Dandelion (*Taraxacum officinale* agg.) and Red Clover (*Trifolium pratense*). A plant species list is appended at **Table 8.2**.

3.2.10 The habitat is described by the UKHab as g4 modified grassland with the following secondary codes: 11 scattered trees, 10 scattered scrub, 75 active management and 64 mown. The trees and shrubs are not indicative of any NVC community, and the ground flora is characteristic of an *MG7 Perennial Rye-grass* ley grassland (Rodwell, 1992) of the NVC.

3.2.11 Neither of the Beech hedgerows are 'important' in accordance with *The Hedgerows Regulations 1997* Wildlife and Landscape criteria; both support only one woody species along their length.

Invasive Plant Species

3.2.12 No invasive plant species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected within the site.

3.3 Animal Life

Badger

3.3.1 No badger or signs of badger were detected within the site or within the accessible 50 metres around the site. The presence of badger is reasonably discounted.

Bat Species

Daylight Survey: Building 1

3.3.2 Refer to **Photos 6 to 14**. The detached single-storey former retail precinct is disused and derelict and constructed from walls of mortared blockwork on a metal frame, with roller shutter doors present at the south-western elevation. The building supports a flat roof of concrete.

3.3.3 Occasional gaps and damage due to vandalism are present at the metal and timber fascias and cladding (an example is provided at **Photo 9**) however no signs of roosting bats were detected at the external elevations of the building, and it was not considered that any of the features identified provided a favourable or typical feature suitable for use by roosting bats.

3.3.4 Internally the building is divided into smaller shops at the south-western elevation and a larger former supermarket (and storeroom) which encompasses the north-western and eastern ends of the building. The roof voids (all of which are present above the suspended ceiling tiles present at each internal room) are similar throughout, with localised areas of water damage. The suspended ceiling creates a void of around 0.6 metres height which is partially insulated with fibreglass insulation. No bats or signs of bats were detected within the void, and no gaps suitable for access by bats into the voids were detected at the internal faces of the walls.

3.3.5 No bats or signs of bats were detected at the accessible areas of the building's exterior or the building's interior (all of which could be accessed), and the building does not support any features favourable for use by roosting bats.

3.3.6 The building is assessed (taking into account the suitability of its surrounding habitats as described below) to be of 'negligible' suitability for use by roosting bats.

Daylight Survey: Trees

3.3.7 No trees support any features suitable for use by roosting bats. The presence of roosting bats is reasonably discounted at the site.

Habitat Assessment for Commuting and Foraging Bats

3.3.8 The hard standing which characterises the majority of the site is unlikely to provide an abundance or diversity of invertebrate prey, and is therefore considered to be of 'negligible' suitability for use by foraging bats.

- 3.3.9 The landscape planting present may be suitable for, and contribute to the wider foraging area of, low numbers of common species of edge-feeding foraging bats, such as common pipistrelle (*Pipistrellus pipistrellus*); the site is artificially lit throughout however and is not linked to any favourable habitats for foraging bats such as woodland or waterbodies. Overall the habitats within the site are assessed to be of low suitability for use by foraging and commuting bats.

Bird Species

- 3.3.10 Magpie (*Pica pica*) and black-headed gull (*Larus ridibundus*) were observed flying over the site during the survey, and black-headed gulls and carrion crow (*Corvus corone corone*) were observed resting on the playing field to the west of the site. Blackbird (*Turdus merula*) were heard in the landscape planting at the north-western site boundary.
- 3.3.11 The landscape planting and building are suitable for use by nesting birds (no sign of nesting birds was detected during the daylight inspection of the building however). This is considered further at **Section 4.4** below.

Reptiles

- 3.3.12 The habitats within the site provide poor quality habitat for sheltering, basking and hibernating reptiles. The site supports an even topography and there are no piles of garden waste or other suitable debris for use by sheltering or hibernating reptiles. The species-poor habitats within the site are reasonably unlikely to support a large populations or a variety of invertebrate prey. The site is not adjacent or linked to any areas of favourable habitat for reptile species
- 3.3.13 The presence of reptiles within the site is reasonably discounted.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 In accordance with *RFL National Hub: Site Plan Proposed 4740-HML-01-ZZ-DR-A-10010* (Holmes Miller, 2021) it is proposed to demolish the building and redevelop the area (and areas of the hard standing) to a new sports centre with a spectator stand and offices with associated landscape planting and car parking.
- 4.1.2 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site are evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 It is considered that the site is sufficiently small and distant from all designated sites for nature conservation that the proposed development will have no impact upon them.

4.3 Vegetation and Habitats

- 4.3.1 The site contains only common and widespread plant species. None of the habitats within the site are of significant interest in terms of their plant species composition. None of the habitats present are representative of semi-natural habitat. The NVC communities present are typical of the geographical area and conditions present. No Priority Habitats are present.

- 4.3.2 In terms of each habitat's importance in a geographical context³, the landscape planting is of 'site' value only, and the hard standing does not hold any importance in terms of its geographical context.

4.4 Protected Species and Other Wildlife

- 4.4.1 The presence of roosting bats is reasonably discounted at the building. Recommendations relating to the retention of features suitable for use by foraging and commuting bats (in respect of appropriate lighting) are presented at **Section 5.3**.
- 4.4.2 The trees, shrubs and building provide suitable nesting habitat for the species of birds detected within the site. Consideration of birds (including protection of breeding birds and recommended enhancements for Priority Species) are presented at **Section 5.4** of this report.
- 4.4.3 Otherwise the presence of protected or notable species is reasonably discounted at the site.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

- 5.1.1 These recommendations aim to ensure that the development is implemented in accordance with relevant wildlife legislation, Natural England guidance, the principles of the National Planning Policy Framework (NPPF), local planning policy and best practice.
- 5.1.2 In accordance with Chapter 15, paragraph 180(d) of the NPPF:
- 'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.*
- 5.1.3 Where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified.
- 5.1.4 All recommendations are appropriate to the geographical area, the habitats in the wider area, the wildlife present in the local area (and likely to use the site post-construction) and take into consideration the end use of the site as a sports facility.

5.2 Protection of Existing Vegetation

- 5.2.1 During the construction phase, temporary protective demarcation fencing will be used to protect the trees, shrubs and hedgerows to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until all areas have been developed to ensure protection is provided throughout the construction phase.
- 5.2.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012).

³ In relation to its geographic context, using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system/Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

5.3 Bats

Lighting

- 5.3.1 Paragraph 185(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

'limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.'

Construction Phase

- 5.3.2 Any lighting to be used at the site during construction should be directional and screened where possible, this specification should be included within a Construction Environment Management Plan (CEMP), or similar.

Development Lighting Design

- 5.3.3 The lighting scheme to be implemented at the developed site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the areas of ecological enhancement and any landscape planting, as lighting overspill may deter use by wildlife such as foraging bats.
- 5.3.4 The lighting scheme will be designed with reference to current guidance, namely:
- Guidance Note 8: Bats and Artificial Lighting in the UK* (Institution of Lighting Professionals & Bat Conservation Trust, 2018); and
 - Bats and lighting: Overview of current evidence and mitigation guidance* (Stone, 2014).

5.4 Birds

Protection

- 5.4.1 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive (Natural England, 2015).
- 5.4.2 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

Enhancing Habitats for Nesting Birds

House Sparrow

- 5.4.3 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as halving in rural areas, and dropping by 60% in towns and cities since the mid-1970's (RSPB, 2018).
- 5.4.4 The installation of 2 house sparrow terrace nest boxes is recommended at the proposed new building. The boxes will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. An example of a suitable house sparrow bird box is given below at **Insert 1**:



Insert 1: Schwegler 1SP House Sparrow Nesting Terrace

- 5.4.5 Such bird boxes are available from the NHBS (www.nhbs.com) or Wild Care (www.wildcare.co.uk). ERAP (Consultant Ecologists) Ltd will advise on the siting of bird boxes.

Bird Boxes on Trees

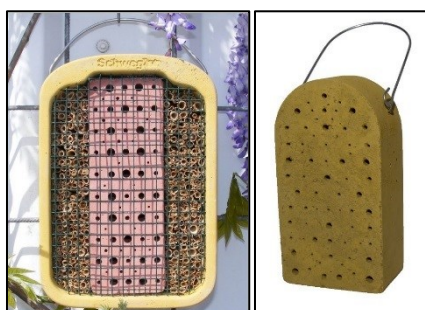
- 5.4.6 Bird boxes suitable for installation on trees are to be installed at the retained mature trees to the south-east of the building. An ecologist will advise on the siting of the woodland bird boxes whilst on site. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. The boxes should be at least 4 metres from ground level.
- 5.4.7 One of each of the boxes presented at **Insert 2**, below, will be used (or boxes of a similar design and which are similarly long-lasting).



Insert 2: Schwegler 3SV, Schwegler 2M and Schwegler 2H bird boxes

Insect Boxes

- 5.4.8 Insect boxes such as those presented at **Insert 3**, below, can provide suitable nesting habitat for solitary bees associated with suburban and urban areas such as the red mason-bee (*Osmia bicornis*), mining bee species (*Andrena* sp.) and other pollinating invertebrates found within urban areas.



Insert 3: Bee hotels

5.4.9 Such bee hotels are available from the NHBS (www.nhbs.com) and Wild Care Shop (www.wildcareshop.com).

5.4.10 The insect box can be sited on an existing feature (such as a tree, fence post or wall) or to a firmly fixed post. Boxes should be sited around waist or chest height. Boxes must be placed facing south and in a sunny position, near an abundance of flowers and shrubs.

5.5 Landscape Planting

5.5.1 It is recommended that the landscape planting within the site is composed from native species and species known to be of value for the attraction of wildlife.

5.5.2 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented at **Table 5.1**, below.

Table 5.1: Suitable Native Species for Tree and Shrub Planting

Scientific Name	Common Name	Scientific Name	Common Name
<i>Acer campestre</i>	Field Maple	<i>Prunus spinosa</i>	Blackthorn
<i>Corylus avellana</i>	Hazel	<i>Rosa arvensis</i>	Field Rose
<i>Crataegus monogyna</i>	Hawthorn	<i>Rosa canina</i>	Dog-rose
<i>Ilex aquifolium</i>	Holly	<i>Sambucus nigra</i>	Elder
<i>Malus sylvestris</i>	Crab Apple	<i>Sorbus aucuparia</i>	Rowan
<i>Prunus avium</i>	Wild Cherry	<i>Ulmus glabra</i>	Wych Elm
<i>Prunus padus</i>	Bird Cherry	<i>Viburnum opulus</i>	Guelder Rose

5.5.3 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.

5.5.4 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds.

5.5.5 For further plants suitable for the attraction of pollinators please refer to the *Perfect for Pollinators Plant List* (Royal Horticultural Society, 2012). It is recommended that the selection of plant species at the site ensures that a variety of flowering species are available throughout the year.

6.0 CONCLUSION

6.1 This ecological assessment has demonstrated that the proposed development at the site is feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework.

6.2 It is possible to implement reasonable actions for the protection and long-term conservation of fauna such as nesting birds and commuting/foraging bats associated with the site.

6.3 The proposed redevelopment at the site will provide an opportunity to secure ecological enhancement for fauna typically associated with suburban areas such as breeding birds and roosting bats.

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8.0 APPENDIX: TABLES, PHOTOGRAPHS AND FIGURES

8.1 Plant Species Lists

Table 8.1: Plant Species List for Ruderal Herbs Colonising Hard Standing

Scientific Name	Common Name	DAFOR	% Cover
Woody Species			
<i>Buddleja davidii</i>	Butterfly-bush	O/LF	<1%
<i>Sorbus aucuparia</i>	Rowan (sapling)	R	<1%
Herb Species			
<i>Agrostis stolonifera</i>	Creeping Bent	VLF	<1%
<i>Arrhenatherum elatius</i>	False Oat-grass	VLF	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	VLF	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	R	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R	<1%
<i>Cirsium arvense</i>	Creeping Thistle	R	<1%
<i>Conyza canadensis</i>	Canadian Fleabane	O	<1%
<i>Dactylis glomerata</i>	Cock's-foot	O	<1%
<i>Epilobium montanum</i>	Broad-leaved Willowherb	VLF	<1%
<i>Equisetum arvense</i>	Field Horsetail	VLF	<1%
<i>Festuca rubra</i>	Red Fescue	VLF	<1%
<i>Galium aparine</i>	Cleavers	R	<1%
<i>Geranium robertianum</i>	Herb-Robert	VLF	<1%
<i>Hieracium</i> sp.	Hawkweed species	VLF	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	O/LF	<1%
<i>Hordeum murinum</i>	Wall Barley	VLF	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	O/LF	<1%
<i>Medicago lupulina</i>	Black Medick	R	<1%
<i>Melilotus officinalis</i>	Ribbed Melilot	VLF	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	O	<1%
<i>Poa annua</i>	Annual Meadow-grass	VLF	<1%
<i>Rumex crispus</i>	Curled Dock	R	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	R	<1%
<i>Sagina procumbens</i>	Procumbent Pearlwort	VLF	<1%
<i>Senecio jacobaea</i>	Common Ragwort	O	<1%
<i>Senecio vulgaris</i>	Groundsel	O	<1%
<i>Sisymbrium officinale</i>	Hedge Mustard	O	<1%
<i>Trifolium repens</i>	White Clover	R	<1%
<i>Tussilago farfara</i>	Colt's-foot	O	<1%

¹**Key to DAFOR:** D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

Table 8.2: Plant Species List for Landscape Planting

Scientific Name	Common Name	DAFOR	% Cover
Woody Species			
<i>Acer platanoides</i>	Norway Maple	O/LF	20%
<i>Acer pseudoplatanus</i>	Sycamore	O/LF	<1%
<i>Buddleja davidii</i>	Butterfly-bush	O	<1%
<i>Crataegus monogyna</i>	Hawthorn	O	<1%
<i>Fagus sylvatica</i>	Beech	LA	20%
<i>Pyrus communis</i>	Pear	LF	20%
<i>Salix caprea</i>	Goat Willow	VLF	<1%
<i>Sorbus aucuparia</i>	Rowan	LF	20%
<i>Sorbus intermedia</i>	Swedish Whitebeam	LA	10%
<i>Tilia</i> sp.	Lime species	LA	10%
Herb Species			
<i>Aster novi-belgii</i> agg.	Michaelmas-daisy	O	<1%
<i>Cirsium arvense</i>	Creeping Thistle	O	<1%
<i>Cirsium vulgare</i>	Spear Thistle	R	<1%
<i>Conyza canadensis</i>	Canadian Fleabane	VLF	<1%
<i>Dactylis glomerata</i>	Cock's-foot	O/VLF	<1%
<i>Festuca rubra</i>	Red Fescue	O/LF	5%
<i>Hieracium</i> sp.	Hawkweed species	O/LF	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	O/LF	5%
<i>Hordeum murinum</i>	Wall Barley	VLF	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	F	30%
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	R	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	O	<1%
<i>Poa pratensis</i>	Smooth Meadow-grass	VLF	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	O	<1%
<i>Rubus fruticosus</i> agg.	Bramble	VLF	<1%
<i>Sonchus oleraceus</i>	Smooth Sow-thistle	R	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O/LF	<1%
<i>Trifolium pratense</i>	Red Clover	O/LF	<1%
<i>Urtica dioica</i>	Common Nettle	VLF	<1%
Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

8.2 Photographs



Photo 1: Hard standing with landscape planting



Photo 2: Hard standing with colonising ruderal herbs



Photo 3: Trees at south-eastern corner of the site



Photo 4: Landscape planting at the north-western car park margin



Photo 5: Beech hedgerow at the eastern site boundary



Photo 6: Building 1, south-eastern elevation



Photo 7: Building 1, south-western elevation, southern end



Photo 8: Building 1, south-western elevation, northern end



Photo 9: Building 1, damage to timber canopy roof

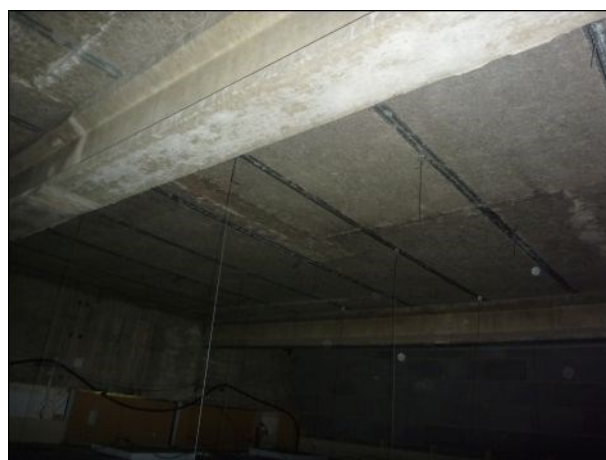


Photo 10: Building 1, space above suspended ceiling



Photo 11: Building 1, former supermarket



Photo 12: Building 1, former supermarket



Photo 13: Building 1, void above former supermarket



Photo 14: Building 1, void above former supermarket

8.3 Figures

Figure 1: Aerial Image of the Site and its Surroundings

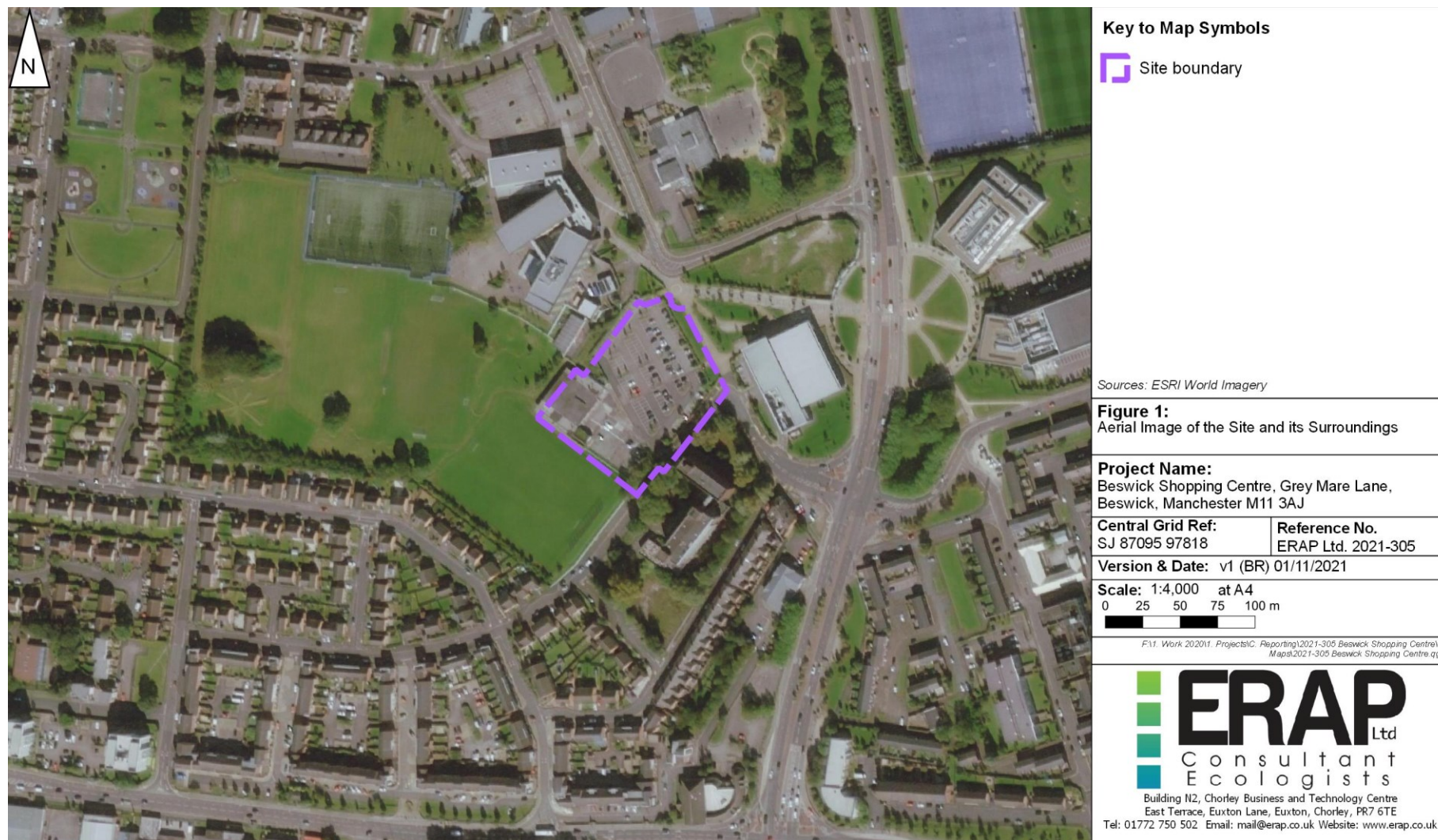


Figure 2 Phase 1 Habitat and Vegetation Map

