

TAYLOR WIMPEY LIMITED



ECOLOGYSOLUTIONS

Part of the ES Group

LAND AT CHAPEL LANE, WIDNES

Ecological Assessment

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1. INTRODUCTION

1.1. Background & Proposals

- 1.1.1. Ecology Solutions was commissioned by Taylor Wimpey Limited in April 2023 to undertake an Ecological Assessment at the 'Land at Chapel Lane, Widnes, Cheshire (see **Plan ECO1**), hereafter referred to as the 'application site'. A description of the proposed development proposals are given below:

"Outline planning application (with all matters other than access reserved) (to be determined by Halton Borough Council only) for the development of up to 350 dwellings, public open space, landscaping and associated infrastructure works. Full details for site access arrangements via a new junction and emergency access on Chapel Lane (to be determined by Knowsley Borough Council only) and a secondary emergency access via Sandy Lane (to be determined by Halton Borough Council)"

1.2. Site Characteristics

- 1.2.1. The application site is situated to the northwest of the Widnes urban area (see **Plan ECO1**). The application site is bordered to the west by Chapel Lane and arable fields, to the south by residential development, to the north by open arable fields, and beyond that the village of Cronton. To the east of the application site lies woodland and further residential development. The application site comprises a farmyard with five intensively managed grassland fields with boundary hedgerows, a treeline, and ponds (see **Plan ECO2**).

1.3. Ecological Assessment

- 1.3.1. This document assesses the ecological interest of the application site as a whole. The importance of the habitats present is evaluated with regard to current guidance published by the Chartered Institute of Ecology and Environmental Management (CIEEM)¹.
- 1.3.2. Where necessary, mitigation measures are recommended so as to safeguard any significant existing ecological interest within the application site and, where appropriate, potential enhancement measures are put forward and reference made to both Priority Species and Priority Habitats (formerly National and Local Biodiversity Habitat Plans).

¹CIEEM (September 2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester

2. SURVEY METHODOLOGY

- 2.1.1. The methodology utilised for the survey work can be split into three areas, namely desk study, habitat survey and faunal survey. These are discussed in more detail below.

Desk Study

- 2.1.2. In order to compile up to date background information on the site and its immediate surroundings Ecology Solutions contacted the Merseyside Biobank and RECORD local records centre in December 2023.
- 2.1.3. Information has been provided by both Merseyside Biobank and RECORD local records centre and is referenced within this report where relevant. Further information on designated sites was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC)² database, which utilises data provided by Natural England. This information is reproduced at **Appendix 1** and where appropriate on **Plan ECO1**.

Habitat Survey

- 2.1.4. An updated habitat survey was undertaken on 6 June 2023 to ascertain the general ecological value of the site and to identify the main habitats and associated plant species. This survey was undertaken in addition to a suite of previous detailed habitat surveys undertaken across the application site by Ecology Services Ltd. in August 2022. The results of the 2023 habitat surveys undertaken across the application site are detailed in this report.
- 2.1.5. The site was surveyed based around a combination of extended Phase 1 survey methodology and UK Habitat Classification (UKHab) methodology. As recommended by Natural England and Defra, whereby the habitat types present are identified and mapped together with an assessment of the general species composition of each habitat recorded at the time. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential, which may require further survey. Any such areas identified can then be examined in more detail. Condition Assessment Criteria (CAC) surveys were also undertaken.
- 2.1.6. Using the above method, the site was classified into areas of similar botanical community types. Where possible, a species list for each habitat recorded at the time of survey has been compiled.
- 2.1.7. An assessment of the site for notable and regulated invasive plant species (Schedule 9 part II) was also undertaken.

² <https://magic.defra.gov.uk>

- 2.1.8. All of the species that occur in each habitat would not necessarily be detected during survey work carried out at any given time of the year since different species are apparent at different seasons. However, given the nature of the habitats present within the site (majority, grassland), and that the survey was undertaken at a suitable time of year for botanical identification, it is considered that an accurate and robust assessment has been made.

Faunal Survey

- 2.1.9. In addition, both specific updated scoping and / or detailed surveys were undertaken in respect of bats, birds, and Badger (*Meles meles*).
- 2.1.10. **Bats.** Field surveys were undertaken with regard to best practice guidelines issued by Natural England (2004³), the Joint Nature Conservation Committee (2004⁴) and the Bat Conservation Trust (2016⁵). All guidance was relevant and current at the time of the survey work taking place.

Building Assessment

- 2.1.11. All buildings/structures present within the site were assessed for potential to support bat roosts both externally and internally in June 2023. The probability of a building being used by bats as a summer roost site increases if it:
- Is largely undisturbed;
 - dates from pre 20th Century;
 - has a large roof void with unobstructed flying spaces;
 - has access points for bats (though not too draughty);
 - has wooden cladding or hanging tiles; and
 - is in a rural setting and close to woodland or water.
- 2.1.12. Conversely, the probability decreases if a building is of a modern or prefabricated design / construction, is in an urban setting, has small or cluttered roof voids, has few gaps at the eaves or is a heavily disturbed premises.
- 2.1.13. All accessible internal spaces and external features of the buildings/structures assessed to have bat roost potential were thoroughly searched for any signs of use by bats.

³ Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

⁴ Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.

⁵ Collins, J. (Eds.) (2016). *Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition)*. Bat Conservation Trust, London.

- 2.1.14. In addition, to further supplement the results of the above internal / external surveys, surveyors completed dusk emergence and dawn re-entry surveys of the buildings considered to have potential to support roosting bats and which are to be impacted by the development proposals.
- 2.1.15. These updated surveys were undertaken in August, and September 2023 with the buildings subject to three separate surveys. Surveyors were positioned in suitable locations to observe all potential aspects of the surveyed buildings, to establish whether any bats were entering or exiting the building. Surveyor's utilised EchoMeter Touch 2 (EMT2) bat detectors to aid identification of bats and record data, which was subsequently analysed using Kaleidoscope bat sound analysis software. Evening emergence surveys were undertaken from 15 minutes before sunset until 2 hours after sunset, and dawn re-entry survey were undertaken 2 hours before sunrise until sunrise.
- 2.1.16. This survey method aimed to identify if any bats were roosting within the buildings which were identified to contain a potential to support roosting bats and the position of any access points used by bats as well as the species and number of bats using any identified roosts.

Tree Assessment

- 2.1.17. In June 2023, all trees within and immediately adjacent to the site were assessed for their potential use by bats. Ladders, binoculars, and an endoscope were used where necessary.
- 2.1.18. For a tree to be classed as having potential for roosting bats, it must usually have one or more of the following characteristics:
- obvious holes, e.g. rot holes and old woodpecker holes;
 - dark staining on the tree below a hole;
 - tiny scratch marks around a hole from bats' claws;
 - cavities, splits and/or loose bark from broken or fallen branches, lightning strikes etc.; and/or
 - very dense covering of mature Ivy (*Hedera helix*) over trunk.
- 2.1.19. The main requirements for a winter/hibernation roost site is that it maintains a stable (cool) temperature and humidity. Sites commonly utilised by bats as winter roosts include trees with cavities/holes, underground sites, and parts of buildings. Whilst different species may show a preference for one of these types of roost site, none are solely dependent on a single type.

Activity Surveys

- 2.1.20. An initial assessment of the suitability of the site and the immediate vicinity to support commuting and foraging bats in the local area was also undertaken.
- 2.1.21. To ascertain the level of use of the application site by foraging and commuting bats (including species and the level of activity present), updated bat activity surveys have been undertaken at the application site. Walked transect surveys were completed in May, June, July, August, and September 2023.
- 2.1.22. The walked transect survey involved surveyors walking the site along a transect which encompassed all features of potential value for bats, recording all bat activity seen and heard. Surveys started approximately 15 minutes before sunset and continued for approximately 2 hours after sunset. Surveyors utilised EMT2 Pro bat detectors with iPads to aid identification of bats and to record data, with information subsequently analysed using Kaleidoscope bat sound analysis software.
- 2.1.23. Surveys were completed across the site during favourable weather conditions, as outlined in Table 1.

Table 1. Dates, timings, and weather conditions for bat activity transect surveys undertaken across the site.

Date	Weather Conditions
23.05.23 (Dusk)	14°C, 50% cloud cover, dry, moderate breeze
20.06.23 (Dusk)	18°C, 30% cloud cover, dry, light breeze
18.07.23 (Dusk)	15°C, 100% cloud cover, dry, light breeze
22.08.23 (Dusk)	18°C, 50% cloud cover, dry, moderate breeze
19.09.23 (Dusk and Dawn)	18°C, 70% cloud cover, dry, strong breeze

- 2.1.24. In order to obtain longer-term data regarding the use of the site by bats, automated detector (SongMeter SM4 bat detectors / SM4 'mini' detectors) surveys were undertaken in conjunction with the activity surveys. Detectors were deployed for at least five consecutive nights. The locations of where static detectors were deployed for each month are illustrated on **Plan ECO3**.
- 2.1.25. **Badgers.** Specific survey work was undertaken in June 2023 to search for evidence of Badgers within the application site. This survey work entailed

two elements, the first of which was a thorough search for evidence of any Badger setts. For any setts encountered, each entrance would be recorded and plotted, even if the entrance appeared disused. The following information was recorded if appropriate:

- i) The number and location of well used or very active entrances; these are clear of any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently.
- ii) The number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance.
- iii) The number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

2.1.26. Secondly, evidence of Badger activity, such as well-worn paths and run-throughs, snagged hair, footprints, latrines, and foraging signs, was also searched for in order to build up a picture of the use of the site by Badgers.

2.1.27. **Birds.** Specific survey work for breeding birds was undertaken across three visits to the site from May to June 2023, as outlined in the table below:

Table 2: Dates, timings, and weather conditions for Breeding Bird transect surveys undertaken across the site.

Survey	Date	Weather
1	16.05.23	Dry, 10% cloud cover, 11°C
2	30.05.23	Dry, 20% cloud cover, 7°C
3	27.06.23	Drizzle, 100% cloud cover, 13°C

2.1.28. Surveys were carried out following the Common Bird Census (CBC) technique. The CBC involves walking transect routes through the area being studied and recording and plotting all bird species observed or heard and their behaviour.

2.1.29. The transect route was chosen so that the entirety of the application site was covered and all features likely to support breeding birds surveyed.

2.1.30. The surveys were carried out in the early mornings from just after sunrise and lasted two and a half hours.

- 2.1.31. **Other notable and / or protected species.** During the survey work undertaken, consideration was given to the application sites potential to support a number of other protected and / or notable species.

3. ECOLOGICAL FEATURES

3.1. The application site was surveyed in June 2023. The following main habitat / vegetation types were identified:

- Grassland: Modified Grassland;
- Grassland: Other Neutral Grassland;
- Heathland and Shrub – Bramble Scrub;
- Hedgerows;
- Line of Trees;
- Individual Trees: Rural Tree;
- Ponds;
- Urban: Vegetated Gardens; and
- Urban: Developed Land; Sealed Surface

3.1.1. The location of these habitats is shown on **Plan ECO2**. Each habitat present is described below with an account of the representative plant species present.

Modified Grassland

3.1.2. The application site comprises of four 'poor condition' modified grassland fields (**F1**, **F2**, **F3**, and **F4**). At the time of the survey fields **F1** was cut short by machinery, whilst fields **F2**, **F3**, and **F4** were being / had recently been intensively grazed. All the fields are of similar species composition and ecological quality, albeit **F4** which has a slightly higher species diversity per m². Alongside the species-poor nature, the other characteristics of the grasslands are poor with little or no structurally varied sward height, along with bare ground, and signs of damage from machinery and overgrazing accompanied by small pockets of bramble scrub developing in the north-west of the Site. Field **F1** are located to the west of the application site, with **F2** and **F3** making up the northern central portion of the site, and **F4** making up the southern central portion of the site (see **Plan ECO2**).

3.1.3. The grassland is dominated by a few vigorous species including Yorkshire fog (*Holcus lanatus*), Creeping buttercup (*Ranunculus repens*) and Common bent (*Agrostis capillaris*), Perennial rye-grass (*Lolium perenne*), White clover (*Trifolium repens*) and Timothy (*Phleum pratense*), Cat's-ear (*Hypochaeris radicata*), Cock's-foot (*Dactylis glomerata*), Meadow buttercup (*Ranunculus acris*), Compact rush (*Juncus conglomeratus*), Common mouse-ear (*Cerastium fontanum*), and Ribwort plantain (*Plantago lanceolata*).

Other Neutral Grassland

- 3.1.4. The eastern arable field (**F5**) is an area of grassland where there is an increased species richness compared to the other grasslands across the application site. Structural diversity is relatively high across **F5** with areas of both long and short vegetation, alongside bare ground, bracken, and invasive species are absent. Some of the drawbacks to the quality of this grassland are the low species diversity and clear damage by machinery and cutting.
- 3.1.5. Species present include Yorkshire fog (*Holcus lanatus*), with frequent Creeping buttercup and Common bent (*Agrostis capillaris*), Perennial rye-grass (*Lolium perenne*), White clover, Timothy (*Phleum pratense*), Cat's-ear (*Hypochaeris radicata*), Cock's-foot (*Dactylis glomerata*), Meadow buttercup, Compact rush (*Juncus conglomeratus*), Common mouse-ear (*Cerastium fontanum*), Ribwort plantain, Bush vetch (*Vicia sepium*), Common vetch (*Vicia sativa*), Sweet vernal grass (*Anthoxanthum odoratum*), Lesser trefoil (*Trifolium dubium*) and, Hairy tare (*Vicia hirsuta*).

Bramble Scrub

- 3.1.6. Bramble scrub is present throughout the farmyard, with pockets and bands scattered along the eastern and northern boundary of **F1**. Whilst contiguous in areas with the modified grassland, given the absence of other scrub species this has been classified as a separate parcel of bramble scrub.
- 3.1.7. With low species and structural homogeneity, the opportunities offered by this habitat type to other species are limited.

Hedgerows

- 3.1.8. The application site supports a number of hedgerows throughout. These are labelled on **Plan ECO2** and are described below.
- 3.1.9. A number of hedgerows are dispersed around the borders of the application site. **H1**, **H2**, **H3**, **H4**, **H5** and **H6** are deemed onsite.
- 3.1.10. Hedgerow **H1** runs along the western application site boundary (west boundary of **F1**) and backs onto Chapel Lane. This hedgerow was recorded to be dominated by Hawthorn (*Crataegus monogyna*), Hazel (*Corylus avellana*), Blackthorn (*Prunus spinosa*), and young Oak.
- 3.1.11. Hedgerow **H2** Runs along the northern boundary of the application site (the northern boundary of **F1**, **F2**, **F3**, and **F5**). **H2** is dominated by Hawthorn, Bramble, Sycamore (*Acer pseudoplatanus*), Pedunculate oak (*Quercus robur*), Goat willow (*Salix caprea*), Wild cherry (*Prunus avium*),

Crack willow (*Salix x fragilis*), and dead Elms (*Ulmus sp.*). The ground flora was dominated by Bramble (*Rubus fruticosus*), Common nettle (*Urtica dioica*), Elder (*Sambucus nigra*), and Field bindweed (*Convolvulus arvensis*).

- 3.1.12. Hedgerow **H3** runs along the western boundary of **F5**, and borders Sandy's Lane is dominated by Hawthorn, frequent Bramble, Hop (*Humulus lupulus*), Black bryony (*Tamus communis*), and White bryony (*Bryonia alba*).
- 3.1.13. The ground flora was dominated by Cock's-foot (*Dactylis glomerata*), Red campion (*Silene dioica*), Common nettle, with Creeping thistle (*Cirsium arvense*) and Coltsfoot (*Tussilago farfara*) also recorded.
- 3.1.14. Hedgerow **H4** dissects through the centre of the application site and is situated along the northern boundary of **F4** and the southern boundaries of **F2** and **F3**. **H4** is relatively species rich with species such as Hawthorn, Bramble, Sycamore, Elder, Grey willow (*Salix cinerea*), Hazel, Oak, Blackthorn, Gorse (*Ulex europaeus*) Goat Willow, Holly (*Ilex aquifolium*), Ash (*Fraxinus excelsior*), Field maple (*Acer campestre*) present. **H4** lacks form and structure in areas with gaps and standing deadwood present. The ground flora includes Sorrel (*Rumex acetosa*), Common knapweed (*Centaurea nigra*), Common nettle, Cock's foot, Yorkshire fog, and Broadleaved dock (*Rumex obtusifolius*). Furthermore, the hedgerow contains a ditch along its southern edge. At the time of the June 2023 survey, it was noted to be entirely dry with no evidence of aquatic vegetation. On that basis, it is considered to hold water only rarely and / or during periods of excessive precipitation.
- 3.1.15. Hedgerow **H5** runs along the southeastern boundary of **F4**. This hedgerow is approximately 3m in height and 2.5m wide and is dominated by Hawthorn and Blackthorn.
- 3.1.16. Hedgerow **H6** runs along the southern site boundary (south and western boundaries of **F4**) and is dominated by Hawthorn. Other species include Sycamore, Ash, Honeysuckle (*Lonicera periclymenum*), and Hazel. The ground flora was dominated by Bramble, Common nettle, Elder, and Field bindweed.

Line of Trees

- 3.1.17. The application site supports a number of treelines throughout. These are labelled on **Plan ECO2** and are described below.
- 3.1.18. One treeline (**T1**) is on the southwest of the site, south of the built form within the west of the application site.

- 3.1.19. Treeline **T1** includes species such as Chestnut, Copper beech (*Fagus sylvatica f. purpurea*), and Pine (*Pinus sp.*).

Trees

- 3.1.20. There are a number of trees present within the site and along its boundaries. These include Ash, Pedunculate Oak, Lawson cypress (*Chamaecyparis lawsoniana*), Norway maple (*Acer platanoids*), Horse chestnut (*Aesculus hippocastanum*), Silver birch (*Betula pendula*), Italian cypress (*Cupressus sempervirens*), Sycamore, Wild cherry, White willow (*Salix alba*).

Ponds

- 3.1.21. Two ponds **P1** and **P2** are present within **F4**. **P1** is noted to be stocked with carp, has piping attached to a pump running from the pond, and is surrounded by low distinctiveness modified grassland, bramble scrub and trees. The water levels of **P1** have been noted to fluctuate throughout the year. During the survey in August 2023, the waterbody was noted to be approximately 3 foot deep in places, however during all other survey visits the water level has been considerably lower, likely due to farming practices.
- 3.1.22. **P2** is overshadowed by willow, hawthorn and choked with bramble scrub. **P2** has a water depth under 50 cm, high turbidity and thick leaf litter layer. With much of the surface being covered in duckweed (*Lemna minor*) during the June 2023 survey visit.

Vegetated Garden

- 3.1.23. The west of the site adjacent to Chapel Lane is comprised of one residential property and associated garden space.
- 3.1.24. The majority of this area appears to be comprised of typical garden vegetation, including a regularly mown amenity lawn, introduced 'beds' and planted shrubs, scattered trees and various other landscaping measures.
- 3.1.25. Species present throughout the vegetated garden include, Yarrow, Germander speedwell (*Veronica chamaedrys*), Cocksfoot, Creeping buttercup (*Ranunculus repens*), Meadow buttercup (*Ranunculus acris*), Common daisy, Black medic (*Medicago lupulina*), White clover (*Trifolium repens*), Ribwort plantain, Bluebell (*Hyacinthoides non-scripta*), Red campion (*Silene dioica*), Cowslip (*Primula veris*), Primrose (*Primula vulgaris*), Lesser celandine (*Ficaria verna*), Lesser trefoil, Sterile Brome (*Anisantha sterilis*), Chickweed (*Stellaria media*), Creeping cinquefoil (*Potentilla reptans*), Sun spurge (*Euphorbia helioscopia*), Cow parsley (*Anthriscus sylvestris*), buddleia (*Buddleja davidii*), Cleavers (*Galium*

aparine), Ground alder (*Aegopodium podagraria*), Ivy (*Hedera helix*), Field bindweed (*Convolvulus arvensis*), Grape hyacinth (*Muscari armeniacum*), Thyme (*Thymus vulgaris*), Bramble (*Rubus fruticosus*), Hazel (*Corylus avellana*), Variegated shrubs sp. and, Lavender (*Lavandula angustifolia*).

Developed Land; Sealed Surface

- 3.1.26. A total of five buildings (**B1, B2 (B2a), B3, B4, and B5 (B5a)**) with adjacent hardstanding are present within the application site, the buildings are used for residential and farm storage purposes.
- 3.1.27. An individual description of each building is provided below.
- 3.1.28. Building **B1** is a large single storey, metal framed barn with a pitched, asbestos covered, corrugated roof. The barn is entirely open to the south side and currently contains farm machinery. The north elevations and both gable ends are clad in wood panelling. Overall, the building is open and has no thermal properties.
- 3.1.29. Building **B2** is a metal framed building housing multiple grain silo. The building is clad in a mix of corrugated steel sheeting and asbestos panels. The roof is pitched and covered with asbestos sheets. On the top of the roof is a small Cupola type structure clad with corrugated metal sheets with a metal sheet covered, pitched roof. Internally the building is open plan containing steel frames and silos with multiple steel ledges and beams. There are wooden gantry walkways accessible via a ladder, but these were not considered safe to access. Building **B2a** is another agricultural building adjoined to the south side of **B2**. **B2a** has a concrete block base and is clad with corrugated metal sheeting and asbestos sheeting. Corrugated asbestos sheeting has been used on the roof with plastic skylights. Internally **B2a** is timber framed, open and light.
- 3.1.30. Building **B3** is a large single-storey timber-built structure with a pitched roof clad in asbestos corrugated sheets. The roof structure is timber with supporting trusses with no loft space.
- 3.1.31. Buildings **B4** is a single-storey residential bungalow. The bungalow is brick built with concrete roof and ridge tiles, wooden fascias / soffit boxes, and uPVC guttering. The bungalow has a pitched roof with brick-built chimney stacks.
- 3.1.32. Buildings **B5** is a single-storey timber shop with a pitched, corrugated asbestos roof with wooden fittings. There are no fascia or soffits present. **B5** is covered in plywood sheeting. Building **B5a** is adjacent to the east of **B5** and is a single storey shed constructed of wooden boarding and pitched felt roof.

Background Records

- 3.1.33. The data search undertaken with Merseyside Biobank and RECORD local records centre returned several records of higher plants from the local area. The nearest records were from approximately 0.3 km away from the application site boundary. The nearest records include Yellow Waterlily (*Nuphar lutea*) and Reed Canary-grass (*Phalaris arundinacea*). Other records returned within 2 km include Bluebell, Large-flowered Hemp-nettle (*Galeopsis speciosa*), Welsh poppy (*Meconopsis cambrica*), and Fritillary (*Fritillaria meleagris*).

4. WILDLIFE USE OF THE SITE

- 4.1.1. During the surveys undertaken in 2023 general observations were made of any faunal use of the application site, with specific attention paid to the potential presence of protected or notable species. Specific surveys were also undertaken in respect of bats, birds, and Badgers.

Bats

Preliminary Internal/External Survey Results

- 4.1.2. Updated Internal and external surveys of all buildings were completed in June 2023 (**B1, B2 (B2a), B3, B4, and B5 (B5a)**).
- 4.1.3. Potential or historically confirmed roosting features were recorded to be associated with the roof spaces and voids (i.e., fascia's / soffit boards, loft voids, or tiles), as well as several cracks and holes within the walls of the buildings. Further detail on the potential roost features and roost potential is provided below.

Table 3. Summary of Internal / External bat surveys undertaken across the buildings within the application site.

Building Reference	Potential Roost Features / Signs	Potential to Support Bats	Potential Evidence of Bats Recorded During Internal Surveys
B1	No suitable roosting features. No droppings or any other evidence of the presence of bats was identified which suggested present or historic use.	Negligible Potential	Emergence / re-entry surveys undertaken in 2022 with no recorded roosting bats. Updated Internal / External surveys undertaken again with no evidence of roosting bats recorded.
B2/B2a	The building is large and draughty with very few suitable roosting spaces. Furthermore, no droppings or any other evidence of the presence of bats was identified which suggested present use.	Low Potential	During the updated 2023 internal and external survey no evidence of roosting bats recorded. However, Emergence / Re-entry surveys undertaken in 2022 recorded bats to be roosting. As such further precautionary Emergence / re-entry surveys were undertaken in 2023.

B3	Potential entry points although these provide a lot of light to the building. No droppings or any other evidence of the presence of bats was identified which suggested present or historic use.	Low Potential	Emergence / re-entry surveys undertaken in 2022 with no recorded roosting bats. Updated Internal / External surveys undertaken again with no evidence of roosting bats recorded.
B4	Small gaps under the flashing where the chimney meets the roof on the western elevation. There are numerous places where the soffit box is damaged or open on the western elevation and northern gable. However, the soffit boxes are not thermally efficient and unlikely to provide suitable conditions for roosting bats. No droppings or any other evidence of the presence of bats was identified which suggested present or historic use.	Low Potential	Emergence / re-entry surveys undertaken in 2022 with no recorded roosting bats. Updated Internal / External surveys undertaken again with no evidence of roosting bats recorded.
B5/B5a	B4 has a small gap present at the apex of the gable on the southern elevation where B6a has small gaps within the wooden boarding. However, no droppings or any other evidence of the presence of bats was identified which suggested present or historic use.	Low Potential	Emergence / re-entry surveys undertaken in 2022 with no recorded roosting bats. Updated Internal / External surveys undertaken again with no evidence of roosting bats recorded.

- 4.1.4. Both buildings **B2** and **B2a** were considered to continue to support features of potential. It should also be noted that **B2** was recorded to have two confirmed bat emergence/re-entry points from previous survey work undertaken by Ecology Services Limited in 2022. As a precautionary basis continued Emergence / re-entry surveys have been continued in August-September 2023.

Bat Emergence/Re-entry Surveys

- 4.1.5. Guided by the results of the updated internal and external survey work, and a historical understanding of the application site, detailed emergence / re-entry surveys were undertaken between the period of August and September 2023, in order to ascertain their use by roosting bats (if any).
- 4.1.6. Where identified access points have been recorded as part of the emergence / re-entry survey work, these are shown on **Plan ECO4** (if any). Full details of the surveys undertaken across each building is included below.

Building B2

- 4.1.7. Building **B2** was subject to a suite of emergence and / or re-entry surveys during suitable weather conditions during August – September 2023. The dates, findings, and weather conditions are summarised in **Table 4** below.

Table 4. Dates, weather conditions, and results for Emergence / Re-entry surveys of **B2**.

Date	Survey Type	Weather Conditions	Confirmed Bat Emergence / Re-entry	Species & Number	Roost Access Location
08/08/23	Emergence	16°C, 10% cloud cover, dry, light breeze	No	N/A	N/A
09/08/23	Re-entry	13°C, 10% cloud cover, dry, light breeze	No	N/A	N/A
29/08/23	Emergence	15°C, 70% cloud cover, dry, light breeze	No	N/A	N/A
30/08/23	Re-entry	12°C, 30% cloud cover, dry, light breeze	No	N/A	N/A
19/09/23	Emergence	17°C, 100% cloud cover, dry, moderate breeze	No	N/A	N/A
20/09/23	Re-entry	16°C, 100% cloud cover, dry, moderate breeze	No	N/A	N/A

- 4.1.8. During the course of the survey work undertaken, no bats were seen re-entering or emerging **B2**.

Building B2a

- 4.1.9. Building **B2a** was subject to a suite of emergence and / or re-entry surveys during suitable weather conditions during August – September 2023. The below dates, findings and weather conditions are summarised in **Table 5** below.

Table 5. Dates, weather conditions, and results for Emergence / Re-entry surveys of B2a.

Date	Survey Type	Weather Conditions	Confirmed Bat Emergence / Re-entry	Species & Number	Roost Access Location
08/08/23	Emergence	16°C, 10% cloud cover, dry, light breeze	No	N/A	N/A
09/08/23	Re-entry	13°C, 10% cloud cover, dry, light breeze	No	N/A	N/A
29/08/23	Emergence	15°C, 70% cloud cover, dry, light breeze	No	N/A	N/A
30/08/23	Re-entry	12°C, 30% cloud cover, dry, light breeze	No	N/A	N/A
19/09/23	Emergence	17°C, 100% cloud cover, dry, moderate breeze	No	N/A	N/A
20/09/23	Re-entry	16°C, 100% cloud cover, dry, moderate breeze	No	N/A	N/A

- 4.1.10. During the course of the survey work undertaken, no bats were seen re-entering or emerging **B2a**.

Preliminary Tree Assessment Survey Results

- 4.1.11. At the time of the most recent survey, no trees present within or immediately adjacent to the application site were recorded to hold any bat roosting potential.

Walked Transect Surveys

- 4.1.12. Notwithstanding the generally sub-optimal nature of the application site for foraging and commuting bat species, bat activity surveys were undertaken across the application site during 2023, the results of which are detailed below. The transect routes and locations of static detectors are detailed at **Plan ECO3**.

23/05/23

- 4.1.13. **Transect 1:** Recorded a low number of registrations. In total, 118 registrations were recorded. Recorded species include Myotis species *Myotis spp.*, (3 registrations), Nathusius Pipistrelle (*Pipistrellus nathusii*) (15 registrations), Common Pipistrelle (*Pipistrellus pipistrellus*) (97 registrations) and Soprano Pipistrelle (*Pipistrellus pygmaeus*) (3 registrations).
- 4.1.14. **Transect 2:** Recorded a very low number of registrations. In total, 32 registrations were recorded. The only species recorded was Common Pipistrelle (32 registrations).

20/06/23

- 4.1.15. **Transect 1:** Recorded a low number of registrations. In total, 100 registrations were recorded. Recorded species include Nathusius Pipistrelle (10 registrations) and Common Pipistrelle (90 registrations).
- 4.1.16. **Transect 2:** Recorded a low number of registrations. In total, 12 registrations were recorded. Recorded species include Nathusius Pipistrelle (1 registrations) and Common Pipistrelle (10 registrations).

18/07/23

- 4.1.17. **Transect 1:** Recorded a low number of registrations. In total, 100 registrations were recorded. Recorded species include Common Pipistrelle (173 registrations) and Myotis species (2 registrations).
- 4.1.18. **Transect 2:** Recorded a low number of registrations. In total, 172 registrations were recorded. Recorded species include Soprano Pipistrelle (3 registrations) and Common Pipistrelle (169 registrations).

22/08/23

- 4.1.19. **Transect 1:** Recorded a low number of registrations. In total, 142 registrations were recorded. Recorded species include Nathusius Pipistrelle (8 registrations), Common Pipistrelle (130 registrations) and Soprano Pipistrelle (3 registrations).

- 4.1.20. **Transect 2:** Recorded a low number of registrations. In total, 197 registrations were recorded. Recorded species include Nathusius Pipistrelle (12 registrations), Soprano Pipistrelle (7 registrations) and Common Pipistrelle (178 registrations).

19/09/23 – 20/09/23 (Dusk/Dawn)

- 4.1.21. **Transect 1:** Recorded a low number of registrations. In total, 55 registrations were recorded. Recorded species include Nathusius Pipistrelle (1 registration), Soprano Pipistrelle (21 registrations) and Common Pipistrelle (33 registrations).
- 4.1.22. **Transect 2:** Recorded a low number of registrations. In total, 54 registrations were recorded. Recorded species include Common Pipistrelle (53 registrations) and Soprano Pipistrelle (1 registration).

Walked transect summary

- 4.1.23. Almost the entirety of bat activity was recorded along the hedgerows, of the northern field boundaries of **F1**, **F2**, **F3**, and **F5**, the eastern field boundary of **F5**, and the southern field boundary of **F4**. Little activity was associated with the interior of the grassland fields or the western application site boundary.

Automated Surveys

- 4.1.24. Static detectors (five per survey effort) were deployed across the application site between May and September 2023. Each detector was deployed within a strategic location for a minimum of five nights on each occasion. The results from each individual static detector are summarised in the below tables with average nightly registrations per static detectors displayed in brackets. The locations of each static are shown at **Plan ECO3**.

Table 6. Automated Surveys: May 22/05/23 – 30/05/23

Total Number of Registrations (average nightly totals)						
Species	Static Detector 1	Static Detector 2	Static Detector 3	Static Detector 4	Static Detector 5	Total
Myotis spp.	0	2 (0.25)	0	2 (0.25)	3 (0.38)	7 (0.88)
Noctule	0	1 (0.12)	0	0	0	1 (0.12)
Nathusius pipistrelle	80 (10)	28 (3.5)	9 (1.13)	17 (2.1)	62 (7.8)	196 (24.5)
Common Pipistrelle	629 (78.6)	659 (82.4)	301 (37.6)	646 (80.8)	725 (90.6)	2960 (370)
Soprano Pipistrelle	1 (0.12)	5 (0.63)	1 (0.12)	2 (0.25)	4 (0.5)	13 (1.6)
Brown Long-	0	1 (0.12)	1 (0.12)	1 (0.12)	0	3 (0.38)

eared						
Total	710	696	312	668	794	

Table 7. Automated Surveys: June 20/06/23 – 27/06/23

Total Number of Registrations (average nightly totals)						
Species	Static Detector 6	Static Detector 7	Static Detector 8	Static Detector 9	Static Detector 10	Total
Myotis spp.	1 (0.14)	1 (0.14)	0	2 (0.28)	0	4 (0.57)
Noctule	1 (0.14)	2 (0.28)	2 (0.28)	1 (0.14)	0	6 (0.86)
Nathusius pipistrelle	30 (4.28)	90 (12.85)	19 (2.71)	158 (22.6)	0	297 (42.4)
Common Pipistrelle	508 (72.57)	579 (82.71)	1616 (230.85)	1678 (239.7)	0	4381 (625.8)
Soprano Pipistrelle	7 (1)	12 (1.71)	16 (2.28)	14 (2)	0	49 (7)
Brown Long-eared	1 (0.14)	0	0	1 (0.14)	0	2 (0.28)
Total	548	684	1653	1854	0	

Table 8. Automated Surveys: July 18/07/23 – 26/07/23

Total Number of Registrations (average nightly totals)						
Species	Static Detector 11	Static Detector 12	Static Detector 13	Static Detector 14	Static Detector 15	Total
Myotis spp.	0	2 (0.25)	0	7 (0.88)	0	9 (1.2)
Nathusius pipistrelle	0	2 (0.25)	1 (0.12)	2 (0.25)	10 (1.3)	15 (1.9)
Common Pipistrelle	696 (87)	610 (76.3)	1751 (218.9)	464 (58)	3476 (434.5)	6997 (874.6)
Soprano Pipistrelle	2 (0.25)	22 (2.8)	7 (0.88)	14 (1.8)	19 (2.4)	64 (8)
Total	698	236	1759	487	3495	

Table 9. Automated Surveys: August 22/08/23 – 30/08/23

Total Number of Registrations (average nightly totals)						
Species	Static Detector 16	Static Detector 17	Static Detector 18	Static Detector 19	Static Detector 20	Total
Serotine	0	1 (0.12)	0	0	2 (0.25)	3 (0.38)
Myotis spp.	12 (1.5)	4 (0.5)	15 (1.9)	2 (0.25)	0	23 (2.9)
Noctule	10 (1.25)	9 (1.13)	5 (0.63)	5 (0.63)	4 (0.5)	33 (4.1)
Nathusius pipistrelle	20 (2.5)	11 (1.4)	6 (0.8)	9 (1.13)	12 (1.5)	58 (7.25)
Common	1598	2714 (339.3)	1120 (140)	1238	1453 (181.6)	8123

Pipistrelle	(199.75)			(154.75)		(1015.4)
Soprano Pipistrelle	36 (4.5)	32 (4)	30 (3.8)	95 (11.9)	19 (2.4)	212 (26.5)
Brown Long-eared	2 (0.25)	0	0	3 (0.38)	0	5 (0.4)
Leisler's Bat	0	0	1 (0.125)	0	0	1 (0.12)
Total	1678	2771	1177	1352	1490	

Table 10. Automated Surveys: September 13/09/23 – 20/09/23

Total Number of Registrations (average nightly totals)						
Species	Static Detector 21	Static Detector 22	Static Detector 23	Static Detector 24	Static Detector 25	Total
Myotis spp.	3 (0.42)	3 (0.42)	0	2 (0.28)	1 (0.14)	9 (1.3)
Noctule	0	4 (0.6)	7 (1)	0	0	11 (1.6)
Nathusius pipistrelle	2 (0.28)	412 (58.9)	376 (53.7)	1 (0.14)	1 (0.14)	792 (113.1)
Common Pipistrelle	3221 (460.1)	3780 (540)	3528 (504)	293 (41.9)	431 (61.6)	11253 (1607.6)
Soprano Pipistrelle	26 (3.7)	31 (4.4)	13 (1.9)	12 (1.7)	4 (0.6)	86 (12.3)
Brown Long-eared	0	0	0	1 (0.14)	0	1 (0.14)
Total	3252	4230	3924	309	437	

Automated Survey Summary

- 4.1.25. In general, use of the site by bat species is low, even when recorded over a prolonged period of time. Whilst more common species such as Common Pipistrelle were recorded in higher numbers (peak of 1607 nightly average registrations during the September survey), these are entirely common and widespread, and it is not considered that these numbers are significant given the local context. Other, arguably more notable species, such as Brown Long-eared (*Plecotus auritus*) and Serotines, were all recorded in much lower numbers and limited to hedgerows set to be retained / enhanced (see Section 6).
- 4.1.26. On the basis of the above, given the local context of the site and the availability of better-quality habitat in the surrounding area, it is not considered that the application site is of overriding important to the local bat population.
- 4.1.27. **Background Records.** The data search undertaken with Merseyside Biobank and RECORD local records centre returned several records of bats from the local area. No records were returned from within or immediately adjacent to the application site boundary. The closest records returned were from approximately 0.5 km away from the application

boundary. These records were for Common Pipistrelle. Within the 2 km radius of the site the following other species was recorded Noctule.

Badgers

- 4.1.28. No evidence of Badger such as any setts, latrines, mammal paths, snagged hairs, foraging marks, or footprints were recorded within the application site during surveys undertaken in 2023.
- 4.1.29. Whilst in general terms the habitats within the application site may provide potential opportunities for Badgers, given the use of the application site (heavily grazed) and lack of any evidence to indicate presence, it is considered that they do not utilise the application site at present.
- 4.1.30. **Background Records.** Merseyside Biobank and RECORD local records centre returned no records of Badger activity from within the application site. The closest records returned were from approximately 1.4 km away from the site boundary and recorded as roadkill.

Birds

- 4.1.31. A total of 32 species of birds was recorded during the three surveys, of which 14 were considered to be breeding. The remaining 18 species were recorded either in adjacent habitats, as migrants, or flying over, or were represented only by non-breeding individuals. Results of the surveys can be seen on **Plan ECO5**.
- 4.1.32. The birds identified include Carrion crow (*C. corone*), Blue tit (*Cyanistes caeruleus*), Great tit (*Parus major*), Long-tailed tit (*Aegithalos caudatus*), Blackcap (*Sylvia atricapilla*), Blackbird (*Turdus merula*), Robin (*Erithacus rubecula*), Chiffchaff (*Phylloscopus collybita*), Magpie (*Pica pica*), Feral pigeon (*Columba livia*), Buzzard (*Buteo buteo*), Ring-necked parakeet (*Psittacula kramera*), Collared dove (*Streptopelia decaocto*), Tree creeper (*Certhia familiaris*), Goldcrest (*Regulus regulus*), Chaffinch (*Phylloscopus collybita*), Jackdaw (*Corvus monedula*), Red legged partridge (*Alectoris rufa*), and Canada goose (*Branta canadensis*).
- 4.1.33. Of the species recorded using the site or adjacent areas, six are Red-status Birds of Conservation Concern (BoCC) species, these being Mistle thrush (*Turdus viscivorus*), House sparrow (*Passer domesticus*), Starling (*Sturnus vulgaris*), Yellowhammer (*Emberiza citrinella*), Greenfinch (*Chloris chloris*) and Linnet (*Linaria cannabina*). Six of the species recorded within the site were Amber-listed BoCC, these include Woodpigeon (*Columba palumbus*), Lesser black backed gull (*Larus fuscus*), Wren (*Troglodytes troglodytes*), Song thrush (*Turdus philomelos*), Dunnock (*Prunella modularis*) and Whitethroat (*Curruca communis*). Cetti's warbler (*Cettia cetti*) a species included under Schedule 1 of the

Wildlife and Countryside Act, were recorded breeding in the northern corner of the site.

- 4.1.34. All breeding activity was associated with the application site periphery, adjacent habitats, and hedgerows. No breeding activity was associated with the grasslands themselves.
- 4.1.35. **Background Records.** The data search undertaken with Merseyside Biobank and RECORD local records centre returned several records of birds from the local area. The nearest records were from approximately 0.3 km away from the application site boundary. These records were of Buzzard (*Buteo buteo*) and house sparrow (*Passer domesticus*). Other bird records within 2 km consist of Barn owl (*Tyto alba*), Curlew (*Numenius Arquata*), Yellowhammer (*Emberiza citronella*), Grey partridge (*Perdix perdix*), Lapwing (*Vanellus vanellus*), Starling (*Sturnus vulgaris*), Black-tailed Godwit (*Limosa limosa*), Spotted flycatcher *Muscicapa striata*, Grasshopper warbler *Locustella naevia*, Cuckoo *Cuculus canorus*, Avocet *Recurvirostra avosetta* and Long tailed duck *Clangula hyemalis*, Redwing *Turdus iliacus*, Greenfinch *Chloris chloris* and Mistle thrush *Turdus viscivorus*.

Invertebrates

- 4.1.36. The application site is expected to support a limited range of common invertebrate species, but there is no evidence to suggest that any protected or notable species are likely to be present. The habitats present and cutting management reduce the application site's suitability to support a diverse / notable invertebrate assemblage.
- 4.1.37. **Background Records.** The data search undertaken with Merseyside Biobank and RECORD local records centre returned several records of invertebrates from the local area. The nearest record returned was from approximately 0.08 km away from the application site boundary. These records were of Common darter (*Sympetrum striolatum*). Other records returned from within 2 km of the application site boundary included Alder leaf beetle (*Agelastica alni*), Centre-barred Sallow (*Atethmia centrago*), Dot moth (*Melanchra persicariae*) and Buff ermine (*Spilosoma lutea*).

Other protected or notable species

- 4.1.38. The vast majority of the application site is unsuitable to Hedgehogs (*Erinaceus europaeus*) or other small mammal species, however, very limited opportunities are available within the boundary field margins and scrub/hedgerow habitats.
- 4.1.39. Notwithstanding the above, during all the survey work undertaken during daylight (habitat, Badger surveys) and evening hours (bat activity surveys), no evidence of Hedgehogs or any other protected or notable

species were recorded on site. Furthermore, given the large-scale unsuitability of the application site, it is considered highly unlikely that Hedgehogs are utilising the site.

- 4.1.40. Given the context of the site, the low quality and fairly disconnected habitats present, and the lack of any further evidence, the site is not expected to support any other protected or notable species, including species such as Otter (*Lutra lutra*) and Water vole (*Arvicola amphibius*).
- 4.1.41. **Background Information.** The data search undertaken with Merseyside Biobank and RECORD local records centre returned several records of mammals from the local area. The nearest record was from approximately 0.4 km away from the application site boundary. These records were of Hedgehog. Other mammals recorded in the area were Brown Hare (*Lepus europaeus*), Weasel (*Mustela nivalis*) and Stoat (*Mustela erminea*).

5. ECOLOGICAL EVALUATION

The Principles of Site Evaluation

- 5.1.1. The latest guidelines for ecological evaluation produced by CIEEM proposes an approach that involves professional judgement, but makes use of available guidance and information, such as the distribution and status of the species or features within the locality of the project.
- 5.1.2. The methods and standards for site evaluation within the British Isles have remained those defined by Ratcliffe⁶. These are broadly used across the United Kingdom to rank Sites, so priorities for nature conservation can be attained. For example, current Site of Special Scientific Interest (SSSI) designation maintains a system of data analysis that is roughly tested against Ratcliffe's criteria.
- 5.1.3. In general terms, these criteria are size, diversity, naturalness, rarity, and fragility, while additional secondary criteria of typicalness, potential value, intrinsic appeal, recorded history and the position within the ecological / geographical units are also incorporated into the ranking procedure.
- 5.1.4. Any assessment should not judge sites in isolation from others, since several habitats may combine to make it worthy of importance to nature conservation.
- 5.1.5. Further, relying on the national criteria would undoubtedly distort the local variation in assessment and therefore additional factors need to be taken into account, e.g. a woodland type with a comparatively poor species diversity, common in the south of England may be of importance at its northern limits, say in the border country.
- 5.1.6. In addition, habitats of local importance are often highlighted within a local Biodiversity Action Plan (BAP). The Worcestershire Biodiversity Action Plan BAP¹⁰ Species currently list a number of BAP habitats and species.
- 5.1.7. Levels of importance can be determined within a defined geographical context from the immediate site or locality through to the International level.
- 5.1.8. The legislative and planning policy context are also important considerations and have been given due regard throughout this assessment.

⁶ Ratcliffe, D A (1977). *A Nature Conservation Review: the Selection of Sites of Biological National Importance to Nature Conservation in Britain*. Two Volumes. Cambridge University Press, Cambridge.

¹⁰ http://www.worcestershire.gov.uk/info/20252/environmental_policy/1155/biodiversity_action_plan

Habitat Evaluation

5.2. Designated Sites

- 5.2.1. **Statutory sites.** There are no statutory designated sites of nature conservation interest located within or immediately adjacent to the application site.
- 5.2.2. The nearest statutory designated site is Clinton Wood LNR located approximately 2.6 km to the south-west of the application site boundary (see **Plan ECO1**). Clinton Wood is an important site for biodiversity and was designated as a Local Nature Reserve in 2001 and has since been developed through the Wild about Halton programme for the site's woodland, grassland, and pond habitats.
- 5.2.3. **Non-statutory sites.** There are no non-statutory designations of conservation value within or adjacent to the application site.
- 5.2.4. The nearest non-statutory designated site is Alder Brook LWS located approximately 0.1 km northwest of the application site boundary. The Alder Brook LWS is designated for a variety of habitats including two local priority habitats neutral grassland and swamp as well as having one locally rare plant species Lesser Bulrush (*Typha angustifolia*).
- 5.2.5. A number of additional statutory and non-statutory sites are located in the wider area, but no significant effects are anticipated.
- 5.2.6. **Designated site mitigation.** Whilst all of the above identified designated sites are separated from the site by significant open areas of land, busy roads, and small settlements, it is considered that a suite of precautionary working principles and construction methodologies will be adopted as part of the project design, on a precautionary basis.
- 5.2.7. It is envisaged that this strategy will involve measures including providing spill kits to machine operators and agreed safe storage of all materials well away from areas of habitat within proximity of the application site boundary or habitats of potential susceptibility to pollution. Activities which are deemed to be of high-risk (i.e. refuelling), interception boards / bunds will be installed to limit the dispersal for potentially contaminated run-off.
- 5.2.8. It is noted that the water strategy for the site would include for the adoption of a three-stage treatment process, including the use of a large suds feature to ensure that any water discharged from the application site will be cleaned to environmentally appropriate levels in accordance with CIRCA guidance. At this stage, it is considered that gullies will be utilised to trap silt and oil, capturing any contaminants from the main development footprint, with the grassed channels and attenuation features providing further vegetative treatment of surface waters in order to ensure that water

quality meets the appropriate regulatory standards. The adopted three stage treatment process would be maintained in-perpetuity to ensure that it remained functional for the lifetime of the proposed development.

- 5.2.9. Regarding the treatment of foul and storm water, this would be discharged to an identified Wastewater Treatment Works (WWTW) following confirmation of local capacity.
- 5.2.10. In regard to dust impacts, it is noted that dust arisings during construction work only has a significant impact within 20 meters due to the heavy soiling of vegetation, further than that it is dispersed and of negligible significance. As such, there are deemed to be no potential for impacts caused by dust deposition arising as a result of the development proposals.
- 5.2.11. Nonetheless, best practice guidelines such as storing aggregates on the far side of operational areas / away from the designated sites and spraying dry materials to limit airborne movement are to be implemented purely on a precautionary basis.
- 5.2.12. Whilst the above measures are purely precautionary, they will ensure that there remains absolutely no potential for adverse effects to arise on any statutory or non-statutory sites as a result of the development proposals. It is considered that full detailed can be secured in response to a suitably worded planning condition, such as a Construction and Environmental Management Plan (CEMP).

Habitats within the site

- 5.2.13. As outlined above, the intensively managed arable grassland which comprises the vast majority of the site holds negligible ecological value. As such, losses to these habitats are considered to be of negligible significance, in ecological terms.
- 5.2.14. Whilst the arable grassland field margins support a limited range of species, these are all common and widespread, both in a national and local context, and are therefore also considered to be of low ecological value, especially when considering the fragmented nature and generally poor condition of these habitats.
- 5.2.15. The hedgerows and trees are of comparatively better value in the context of the applications site, however, again all are generally species-poor and support a weak structure due to mismanagement (in the context of the hedgerows), for the majority.
- 5.2.16. With the exception of some smaller areas of hedgerow which will be lost in order to facilitate access and landscaping measures, the majority of the boundary habitats are of increased ecological value will be retained and

enhanced as part of the development proposals for the application site. These works will be further supplemented by the additional habitat creation which will further mitigate for the losses of habitats of decreased value located within the application site.

- 5.2.17. Details of on-site habitat creation and enhancements are detailed below, in addition to being shown on the accompanying landscaping plans (included at **Appendix 2** of this document).
- 5.2.18. The habitats within the application site are generally not considered to be of any particular ecological importance being dominated by grassland fields, being kept short by cutting and overgrazing. The hedgerows, treelines, and the ponds within the application site are of greatest ecological value (in the context of the application site).

Retention / safeguarding of retained boundary habitats

- 5.2.19. Much of the boundary hedgerows and the treeline are set to be retained as part of the development proposals. To safeguard these features during the construction period, it is recommended that protective fencing be installed where appropriate prior to the commencement of physical construction to protect retained trees and areas of habitat which are to be subject to habitat enhancements / creation. Fencing should be undertaken in accordance with the current British Standard (BS 5837:2012) to protect roots from compaction and shall be installed at canopy width from retained trees. This shall ensure that direct impacts and severance / asphyxiation of roots are avoided.

Habitat creation and enhancements to boundary / landscaping areas

- 5.2.20. **Boundary planted habitats.** A key proponent of the ecological strategy for the application site should include for the enhancements and provision of high-quality boundary habitats. This should include for both the safeguarding of retained features (detailed above), in addition to the bolstering of the currently species-poor and sparse areas of hedgerows, treeline and trees, set to be retained.
- 5.2.21. It is proposed that this is predominately achieved through the inclusion of dense bands of native scrub and grassland planting adjacent to existing hedgerow features.
- 5.2.22. Within these boundary habitats, a range of both native mixed species scrub and tree species should be planted. Where gaps exist in retained hedgerows, these may be 'plugged' in order to form a continuous cover of high-quality native stock.
- 5.2.23. It is envisaged that new scrub and tree planting will be planted at an appropriate frequency to allow for eventual management, typical for that of

good quality scrub habitats. Native fruit-bearing species can be utilised in-order to maximise opportunities for faunal species.

- 5.2.24. Hedgerow planting should occur in double staggered rows and is envisaged to be undertaken during the Autumn or Spring, during suitable weather conditions.
- 5.2.25. Once established, species rich boundary hedgerows should be cut no more than once annually, and on a rotational basis where possible to enhance structure and value to faunal species. Cuts should typically be undertaken as late into the Autumn / Winter period as possible, in order to ensure that these features provide as much of a food resource as possible for birds and other species groups. However, if management is required between March and July this will be preceded by a survey by an ecologist to check for nesting birds.
- 5.2.26. All areas of new boundary planting will need to be subject to a care programme during the establishment period with maintenance including cutting / pruning undertaken where necessary to promote healthy vigorous growth. Regular health checks will need to be undertaken, particularly during periods of dry weather to ensure that planted stock is not affected by drought and desired structure is maintained. Any diseased / dead stock will also be identified and replaced with a suitable substitute.
- 5.2.27. **Grassland and scrub creation.** It is considered that there is scope to provide large areas of species rich wildflower grassland within key landscaping areas of the site, predominantly to the north and east of the application site. Whilst these will be modest in size, these habitats will include a diverse and native species mix which will be of particular benefit to biodiversity.
- 5.2.28. It is proposed that within these areas, a species rich seed mix be used to create the grassland following initial site preparation.
- 5.2.29. Sowing and early-management should be undertaken in line with guidance provided by the relevant seed supplier, however this is envisaged to include for initial ground preparation (including the removal of perennial weeds and nutrient rich top-soil, if required), followed by sowing of seeds during Autumn or early-Spring.
- 5.2.30. Management of the grassland swards in the first year will involve regular maintenance to ensure that seedling development is successful, and that the growth of competitive weed species is controlled. Where required, weeding will be undertaken by hand or if necessary, through the sensitive use of Glyphosate based chemicals. For the first few years, it may be necessary to re-seed areas of wildflower grassland in order that a sufficient, self-sustainable seed-bank can develop.

- 5.2.31. Longer-term management is likely to be dictated by varying light-levels and other conditions within the various grassland pockets however in all instances cutting will avoid the main flowering period (typically late-Spring – late-Summer) to encourage continued and maximum seed dispersal. Cuttings should be left on site to dry for approximately seven days prior to removal to allow for flower seeds to disperse.
- 5.2.32. It is also considered that within the landscaping areas, there is scope to provide dense blocks of mixed-species scrub and orchard-style planting. These should comprise a range of fruit / berry bearing species and should be planted in blocks to allow for more natural growth. Longer-term management should include for thinning / coppicing (once sufficiently mature) as well as edge management, in order to provide a range of ecological niches and opportunities for faunal species, particularly birds and invertebrates.
- 5.2.33. **Attenuation basins / Bioswale.** Attenuation basins will be created in the north-west of the application site. The purpose of the basins will be dual-purpose and will serve as an integral part of the drainage strategy for the site (i.e. SuDS feature), it is considered that there remains scope to specifically designed them in order to maximise its value to biodiversity.
- 5.2.34. This should include for the incorporation of a mixed-gradient design (i.e. shallow sloped) and the inclusion of a 'pockmarked' basin. This will help create a series of micro-habitats, particularly within areas which will be seasonally exposed through drawdown.
- 5.2.35. Further variation can be ensured through the provision of a bespoke mix of water tolerant species- rich seed mixture. This would be complimented by the inclusion of the adjacent scrub habitats.
- 5.2.36. Management in the long-term should be undertaken in an ecologically sensitive manner and will avoid impacting the bankside margins or more sensitive areas.

Enhancement to in-plot areas

- 5.2.37. In addition to those measures proposed within the boundary and landscaping areas of the application site, it is considered that there remains an opportunity to provide in-plot enhancements, particularly around the areas of residential spaces and roads.
- 5.2.38. Whilst the purpose of these areas will be to predominately facilitate visual and amenity needs, it is expected that there is scope to provide individual standing trees and areas of grassland, previously absent from this part of the site.

Habitat Summary

- 5.2.39. Through the undertaking of the described on-site enhancements and in particular the enhancements to the boundary features, it is considered that the losses of ecological assets on site will be compensated for in full, with further mitigation and habitat creation providing overall betterments to biodiversity compared to the baseline situation.

Faunal Evaluation

Bats

- 5.2.40. **Legislation.** All bats are protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and included on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 ("the Habitats Regulations"). These include provisions making it an offence to:
- Deliberately kill, injure or take (capture) bats;
 - Deliberately disturb bats in such a way as to be likely to significantly affect:-
 - (i) the ability of any significant group of bats to survive, breed or rear or nurture their young; or to hibernate; or
 - (ii) to affect significantly the local distribution or abundance of the species concerned;
 - Damage or destroy any breeding or resting place used by bats;
 - Intentionally or recklessly obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).
- 5.2.41. While the legislation is deemed to apply even when bats are not in residence, Natural England guidance suggests that certain activities such as re-roofing can be completed outside sensitive periods when bats are not in residence provided these do not damage or destroy the roost.
- 5.2.42. The words 'deliberately' and 'intentionally' include actions where a court can infer that the defendant knew 'the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.
- 5.2.43. The offence of damaging (making it worse for the bat) or destroying a breeding site or resting place is an absolute offence. Such actions do not have to be deliberate for an offence to be committed.
- 5.2.44. Licences can be granted for development purposes by an 'appropriate authority' under Regulation 55 (e) of the Habitats Regulations. In England, the 'appropriate authority' is Natural England (the government's statutory advisors on nature conservation). European Protected Species licences permit activities that would otherwise be considered an offence.

- 5.2.45. In accordance with the Habitats Regulations the licensing authority (Natural England) must apply the three derogation tests as part of the process of considering a licence application. These tests are that:
1. The activity to be licensed must be for imperative reasons of overriding public interest or for public health and safety;
 2. There must be no satisfactory alternative; and
 3. The favourable conservation status of the species concerned must be maintained.
- 5.2.46. Licences can usually only be granted if the development is in receipt of full planning permission (and relevant conditions, if any, discharged).
- 5.2.47. Seven species of bat are Priority Species, these are Barbastelle (*Barbastella barbastellus*), Bechstein's (*Myotis bechsteinii*), Noctule, Soprano Pipistrelle, Brown Long-eared, Greater Horseshoe (*Rhinolophus ferrumequinum*) and Lesser Horseshoe (*Rhinolophus hipposideros*).
- 5.2.48. **Application Site Usage.** No buildings or trees within the application site were recorded to have developed suitable roosting features for bats.
- 5.2.49. In general, the activity surveys and automated surveys have shown only low levels of activity, with some higher activity recorded by species such as Common Pipistrelle and Soprano Pipistrelle at certain times, such as during the automated detector surveys in September. Activity was recorded on all the boundaries of the application site with no obvious concentration of registrations during the activity surveys. Automated detector surveys found bat activity to be higher on the northern boundaries of the application site with detectors placed in these locations recording higher numbers of registrations (when compared to detectors in other locations) during the majority of survey periods. This is most obvious during August and September surveys.
- 5.2.50. The registrations recorded were mainly from Common Pipistrelle, the most common UK bat species, with occasional registrations from Soprano Pipistrelle, *Myotis* sp., Serotine, Noctule, Leisler's, *Plecotus* species, and Nathusius'.
- 5.2.51. **Mitigation and Enhancements.** The majority of hedgerows / treeline within the application site are to be retained, with any losses limited to providing access into the application site and between the parcels of land. These losses to short sections of hedgerow will have no impact on commuting routes around / through the application site. Furthermore, as part of the Development Proposals several treelines are to be created. The central hedgerow **H4** will also be enhanced through the planting of a species-rich native hedgerow to compliment the ecological connectivity throughout the application site.

- 5.2.52. Species-rich hedgerows, species-rich wildflower grassland, and native tree planting will provide additional opportunities for foraging bats within the application site.
- 5.2.53. It is recommended that the lighting scheme for the development is designed to avoid potential impacts from artificial lighting to retained and newly provided habitats, in particular hedgerow habitat. It is recommended that dark corridors are provided where possible, through the use of hoods and cowls to reduce light spill and to direct lighting away from these features. It is understood that lighting can be kept to a minimum and this will ensure that opportunities for foraging and commuting bats will be present post-development.
- 5.2.54. As an enhancement, it is recommended that a number of Schwegler bat boxes / bricks or similar (e.g. 50) (see **Appendix 3** for suitable examples), are erected on suitable retained trees or proposed buildings and positioned out of reach of opportunistic predators such as cats. These bat boxes / bricks are known to be attractive to a number of the smaller bat species, including Pipistrelle (known from the local area). This measure will create enhanced roosting opportunities within the application site.
- 5.2.55. Despite the updated bat surveys not finding any bat roosts, emergences / re-entries of roosting bats into the buildings it is recommended that a precautionary approach is still upheld. Therefore, immediately prior to the commencement of demolition works, the buildings will be subject to an updated internal and external assessment by a suitably qualified and experienced ecologist to search for any new evidence to indicate use by bats. Equipment such as torches and endoscopes will be used to assist with the survey and search in small gaps.
- 5.2.56. Should any bats be encountered during the survey, works will only commence once a suitable mitigation strategy has been identified by the supervising ecologist. If bats are found to be present, a licence from Natural England is likely to be required although on the basis of the survey work undertaken in 2023, this is considered to be unlikely.
- 5.2.57. If the updated internal and external assessment does not identify any material change in the baseline situation, demolition works will proceed on a precautionary basis in line with a 'soft strip' methodology. This will entail the following key elements:
- Prior to any demolition works taking place, all contractors and personnel will be given a pre-commencement tool-box talk. This will be led by a suitably qualified and experienced ecologist, who will ensure that all personnel on site are aware of the potential presence of bats, the soft demolition methodology to be adopted, and what to do in the unlikely event that a bat is encountered. The

ecologist will be able to answer any questions that the contractors may have at that time;

- A soft demolition approach will subsequently be undertaken. All potential roosting features on the roof (including tiles, soffits, and liners) will be carefully removed by hand under the supervision of a suitably qualified ecologist. Works will proceed in a systematic and careful manner to remove all features with bat roosting potential. Any materials removed from the building will also be checked prior to storage or removal from the site.
- In the very unlikely event that a bat is found, all works shall cease, and the bat will be allowed to disperse of its own accord. Works will only recommence when the suitably licenced and qualified ecologist confirms that they may proceed. Advice will be sought from Natural England if a bat is found.

Badgers

- 5.2.58. **Legislation.** The Protection of Badgers Act 1992 consolidates the previous Badgers Acts of 1973 and 1991. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain, with particularly high populations in the southwest.
- 5.2.59. As well as protecting the animal itself, the 1992 Act also makes the intentional or reckless destruction, damage or obstruction of a Badger sett an offence. A sett is defined as “any structure or place which displays signs indicating current use by a Badger”⁷. “Current use” of a Badger sett is defined by Natural England as “how long it takes the signs to disappear”, or more precisely, to appear so old as to not indicate “current use”.
- 5.2.60. In addition, the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence by constituting ‘cruel ill treatment’ of a Badger.
- 5.2.61. **Application Site Usage.** No evidence of Badger such as any setts, latrines, mammal paths, snagged hairs, foraging marks or footprints were recorded within the application site.
- 5.2.62. **Mitigation and Enhancements.** Although no evidence of Badgers was recorded within the application site, given the known presence of the species in the local area and the mobile nature of Badgers, it is recommended that the Development Proposals be mindful of potential impacts to Badgers.

⁷ Protection of Badgers Act 1992 (as amended). Guidance on ‘Current Use’ in the definition of a Badger Sett
<http://www.naturalengland.org.uk/ourwork/regulation/wildlife>

- 5.2.63. It is recommended that all contractors should be briefed regarding the possible presence of Badgers.
- 5.2.64. Any trenches or deep pits that are to be left open overnight should be provided with a means of escape should a Badger enter. This could simply be in the form of a roughened plank of wood placed at an angle no greater than 45° in the trench as a ramp to the surface. This is particularly important if the trench fills with water.
- 5.2.65. Any trenches/pits should be inspected each morning to ensure no Badgers have become trapped overnight. Should a Badger get stuck in a trench it will likely attempt to dig itself into the side of the trench, by forming a temporary sett. Should a trapped Badger be encountered, an ecologist should be contacted immediately for further advice.
- 5.2.66. The inclusion of new native shrub buffer, hedgerow, and wildflower grassland planting as part of the Development Proposals would maintain and enhance foraging opportunities for Badgers. Berry / fruit bearing species included within the planting scheme will provide seasonal foraging resources.

Birds

- 5.2.67. **Legislation.** Section 1 of the Wildlife and Countryside Act 1981 (as amended) is concerned with the protection of wild birds, whilst Schedule 1 lists species that are protected by special penalties. All species of birds receive general protection whilst nesting.
- 5.2.68. **Site Usage.** The application site offers some limited opportunities for nesting birds in terms of the hedgerows / treeline.
- 5.2.69. During the survey work several common and widespread species were recorded within the application site.
- 5.2.70. **Mitigation and Enhancements.** The Development Proposals will retain the majority of existing foraging and nesting opportunities for birds, through the retention of the hedgerows and treeline within the application site, although small sections are to be lost to facilitate access. The provision of new hedgerows, treelines and landscape planting will offset any losses and provide additional foraging and nesting opportunities for a range of bird species.
- 5.2.71. It is recommended that clearance of any suitable nesting vegetation, including tree felling (and habitat for ground nesting species), be undertaken outside the bird nesting season (March to August inclusive) to avoid any potential offence. Should the above timing constraints conflict with any timetabled works, it is recommended that works commence only after a suitably qualified ecologist has undertaken checks to ensure no

nesting birds are present. If nesting birds are found to be present during checks then a suitable buffer would be implemented (5m minimum) and clearance within this buffer would need to be delayed until young have fledged.

- 5.2.72. Simple enhancement measures could ensure the ornithological interest at the application site is increased. For example, the erection of nest boxes on suitable retained trees (see **Appendix 4** for suitable examples). Using nest boxes of varying designs would maximise the species complement attracted to the application site.

Invertebrates

- 5.2.73. **Application site usage.** Given the habitats present it is likely an assemblage of common invertebrate species would be present within the application site.
- 5.2.74. **Mitigation and Enhancements.** The retention of the hedgerows together with the creation of new areas of species-rich grassland and the planting of new hedgerows and trees would provide new and enhanced opportunities for a range of invertebrates. In addition to created habitats, it is recommended that three insect hotels are incorporated into the scheme to provide further opportunities for invertebrate species (see **Appendix 5** for suitable examples).

Hedgehogs

- 5.2.75. **Application Site Usage.** Given the habitats present it is considered unlikely that hedgehogs utilise the application site. However, Hedgehogs are present within the local area.
- 5.2.76. **Mitigation and Enhancements.** To avoid any harm to Hedgehogs during construction / clearance phases, works should be carried out with due regard to the species. Any cleared vegetation should not be piled together and should be removed as soon as possible, avoiding the creation of suitable nest sites. Clearance of suitable habitat / features should be avoided during the period November to March, where possible. If this conflicts with scheduled works, areas to be cleared should first be inspected by a suitably qualified ecologist.
- 5.2.77. The provision of newly created wildflower meadows and scrub planting will provide increased foraging, commuting and nesting opportunities for hedgehogs within the site.

6. PLANNING POLICY CONTEXT

- 6.1.1. The planning policy framework that relates to nature conservation at the application site is issued nationally through the National Planning Policy Framework (NPPF) and locally through the Halton Delivery and Allocations Local Plan 2014-37 and Knowsley Local Plan 2016 the proposed development will be judged in relation to the policies contained within these documents.

6.2. National Policy

National Planning Policy Framework

- 6.2.1. Guidance on national policy for biodiversity and geological conservation is provided by the National Planning Policy Framework (NPPF), published in March 2012, revised on 24 July 2018, 19 February 2019, 20 July 2021, 5 September 2023 and again on 19 December 2023. It is noted that the NPPF continues to refer to further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system provided by Circular 06/05 (DEFRA / ODP, 2005) accompanying the now-defunct Planning Policy Statement 9 (PPS9).
- 6.2.2. The key element of the NPPF is that there should be “a presumption in favour of sustainable development” (paragraphs 10 to 11). It is important to note that this presumption “does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site” (paragraph 188). ‘Habitats site’ has the same meaning as the term ‘European site’ as used in the Habitats Regulations 2017.
- 6.2.3. Hence, the direction of Government policy is clear. That is, the presumption in favour of sustainable development is to apply in circumstances where there is potential for an effect on a European site, if it has been shown that there will be no adverse effect on that designated site as a result of the development in prospect.
- 6.2.4. A number of policies in the NPPF are comparable to those in PPS9, including reference to minimisation of impacts to biodiversity and provision of net gains to biodiversity where possible (paragraph 180).
- 6.2.5. The NPPF also considers the strategic approach that Local Authorities should adopt with regard to the protection, maintenance and enhancement of green infrastructure, priority habitats and ecological networks, and the recovery of priority species.

- 6.2.6. Paragraphs 185 to 187 of the NPPF comprise a number of principles that Local Authorities should apply, including encouraging opportunities to incorporate biodiversity in and around developments; provision for refusal of planning applications if significant harm cannot be avoided, mitigated or compensated for; applying the protection given to European sites to potential Special Protected Areas (SPA), possible Special Areas of Conservation (SAC), listed or proposed Ramsar sites and sites identified (or required) as compensatory measures for adverse effects on European sites; and the provision for the refusal for developments resulting in the loss or deterioration of 'irreplaceable' habitats – unless there are 'wholly exceptional reasons' (for instance, infrastructure projects where the public benefit would clearly outweigh the loss or deterioration of habitat) and a suitable compensation strategy exists.
- 6.2.7. National policy therefore implicitly recognises the importance of biodiversity and that with sensitive planning and design, development and conservation of the natural heritage can co-exist and benefits can, in certain circumstances, be obtained.

6.3. Local Policy

- 6.3.1. The current documents for planning control purposes at Chapel Lane is the Halton Delivery and Allocations Local Plan 2014-37 and the Knowsley Local Plan 2016 both of which provide the planning framework guiding local planning decisions up until 2037 and 2028 respectively.
- 6.3.2. The strategic objectives of the Halton Delivery and Allocations Local Plan 2014-37 concern the conservation and enhancement of the district's natural environment, including areas of green infrastructure. The Plan's core objectives are further informed through a number of specific planning policies, a number of which relate to ecology and nature conservation.
- 6.3.3. **Policy HE1: Natural Environment and Nature Conservation.** This policy states that if development is likely to have a detrimental impact that adversely affects the integrity of a designated site it will not be permitted, unless it can be demonstrated that there are material considerations which clearly outweigh the need to safeguard the nature conservation value of the site, and any broader impacts on the international, national, or local network of nature conservation assets. Furthermore, the policy states that when considering development proposals, consideration should be given to improving the quality of linkages and creation / management of habitats.
- 6.3.4. **Policy HE4: Green Infrastructure and Greenspace.** This policy states a diverse network of accessible, multi-functional green infrastructure across the district will be protected and enhanced for its biodiversity, recreational, accessibility, health, and landscape value and for the contribution it makes towards combating climate change. The policy states that development

proposals will be required to contribute to the maintenance, enhancement, and, where possible, enlargement, of the districts existing green infrastructure network, in terms of both quantity and quality.

6.3.5. The strategic objectives of the Knowsley Local Plan 2016 concern the conservation and enhancement of the district's natural environment, with an emphasis on areas of green infrastructure and trees.

6.3.6. **Policy CS21: Greenspaces and Trees.** This policy states a diverse network of accessible, multi-functional green infrastructure across the district will be protected and enhanced for its biodiversity, recreational, accessibility, health, and landscape value and for the contribution it makes towards combating climate change. The policy states that development proposals will be required to contribute to the maintenance, enhancement, and, where possible, enlargement, of the districts existing green infrastructure network, in terms of both quantity and quality.

6.4. Discussion

6.4.1. Based on the results of specific surveys and assessments undertaken, the presence and potential presence of protected species has been given due regard and any impacts on habitats of ecological value (including designated sites) have been described. Recommendations have been put forward in this report that would fully safeguard the existing ecological interest of the application site. Furthermore, wherever appropriate, measures to enhance ecological and biodiversity value have been set out, delivering net gains for biodiversity including local and national priority (BAP) species.

6.4.2. In conclusion, implementation of the measures set out in this report enable the proposals to fully accord with planning policy for ecology and nature conservation at all administrative levels.

7. SUMMARY AND CONCLUSIONS

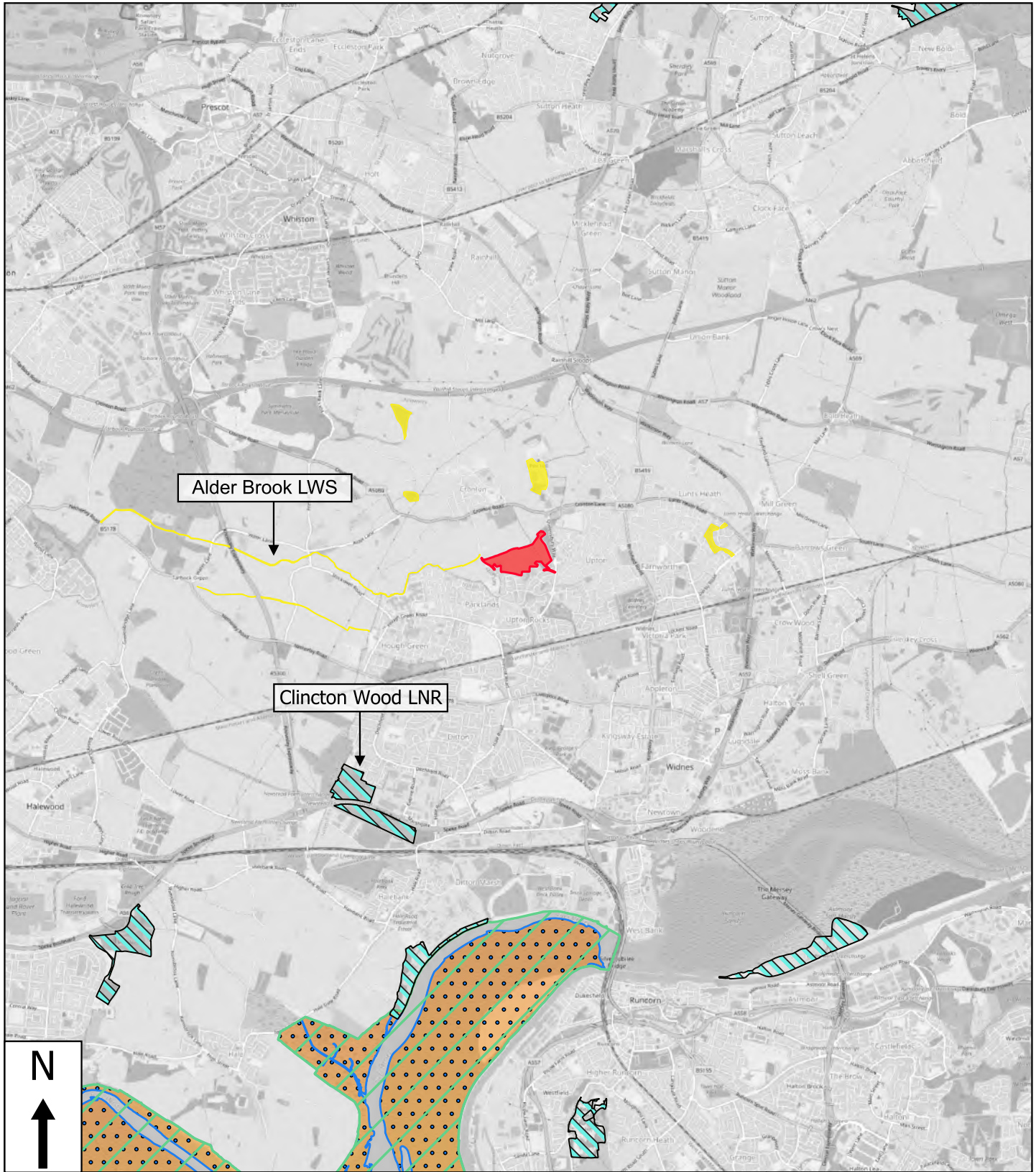
- 7.1. Ecology Solutions was commissioned by Taylor Wimpey Limited in April 2023 to undertake an Ecological Assessment at Land at Chapel Lane, Widnes.
- 7.2. The Development Proposals at the application site are for the Outline planning application (with all matters other than access reserved) (to be determined by Halton Borough Council only) for the development of up to 350 dwellings, public open space, landscaping and associated infrastructure works. Full details for site access arrangements via a new junction and emergency access on Chapel Lane (to be determined by Knowsley Borough Council only) and a secondary emergency access via Sandy Lane (to be determined by Halton Borough Council).
- 7.3. The application site was surveyed based around extended Phase 1 survey methodology, as recommended by Natural England, in June 2023. Updated Specific surveys were undertaken within the application site in respect of bats, breeding birds and Badgers, with consideration also afforded to the potential of the application site to support other protected and notable species / groups.
- 7.4. There are no statutory or non-statutory designated sites of nature conservation interest situated within or immediately adjacent to the site boundary. Given the separation of the site from any designated sites in the local area, and the adoption of appropriate avoidance and mitigation measures as outlined in this report, it is considered that the emerging development proposals at the site would not be likely to lead to a significant effect upon designated sites, either considered alone or in combination with other plans and projects.
- 7.5. The majority of the site comprises intensively managed arable grassland which is of negligible ecological value, with trees, hedgerows, a treeline and ponds of relatively greater value. Through the retention and enhancement of parts of these habitats, and through the provision of new areas of planting across the site, it is considered that there would be scope to provide ecological enhancements compared to the existing situation. Where either protected or notable species have been recorded on site or may be present within the wider area, safeguards and opportunities for enhancement have been identified.
- 7.6. In conclusion, the majority of the application site is not considered to be of particularly high intrinsic value from an ecology and nature conservation perspective and the emerging development proposals provide an opportunity to realise benefits for ecology. As a result, subject to the adoption of measures as outlined in this report, as required, it is not considered that there are any overriding constraints to this site coming forward from an ecological perspective.

PLANS & APPENDICES

PLANS

PLAN ECO1

Application Site and Ecological Designations



KEY:

- SITE BOUNDARY
- ▨ LOCAL NATURE RESERVE (LNR)
- ▨ SITES OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- ▨ SPECIAL PROTECTION AREA (SPA)
- RAMSAR SITE
- LOCAL WILDLIFE SITE (LWS)



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11482: LAND OFF CHAPEL LANE, WIDNES

PLAN ECO1: SITE LOCATION AND
ECOLOGICAL DESIGNATIONS

Rev: C
Dec 2024

PLAN ECO2
Ecological Features



KEY:

OTHER NEUTRAL GRASSLAND

MODIFIED GRASSLAND

BRAMBLE SCRUB

ARTIFICIAL UNVEGETATED, UNSEALED SURFACE

BUILDINGS

ARTIFICIAL UNVEGETATED, UNSEALED SURFACE

OTHER STANDING WATER; PONDS (NON-PRIORITY)

VEGETATED GARDEN

NATIVE HEDGEROW

SPECIES-RICH NATIVE HEDGEROW WITH TREES

SPECIES-RICH NATIVE HEDGEROW WITH TREES - ASSOCIATED WITH A BANK OR DITCH

LINE OF TREES

SMALL TREE

MEDIUM TREE

LARGE TREE

EXTRA LARGE TREE

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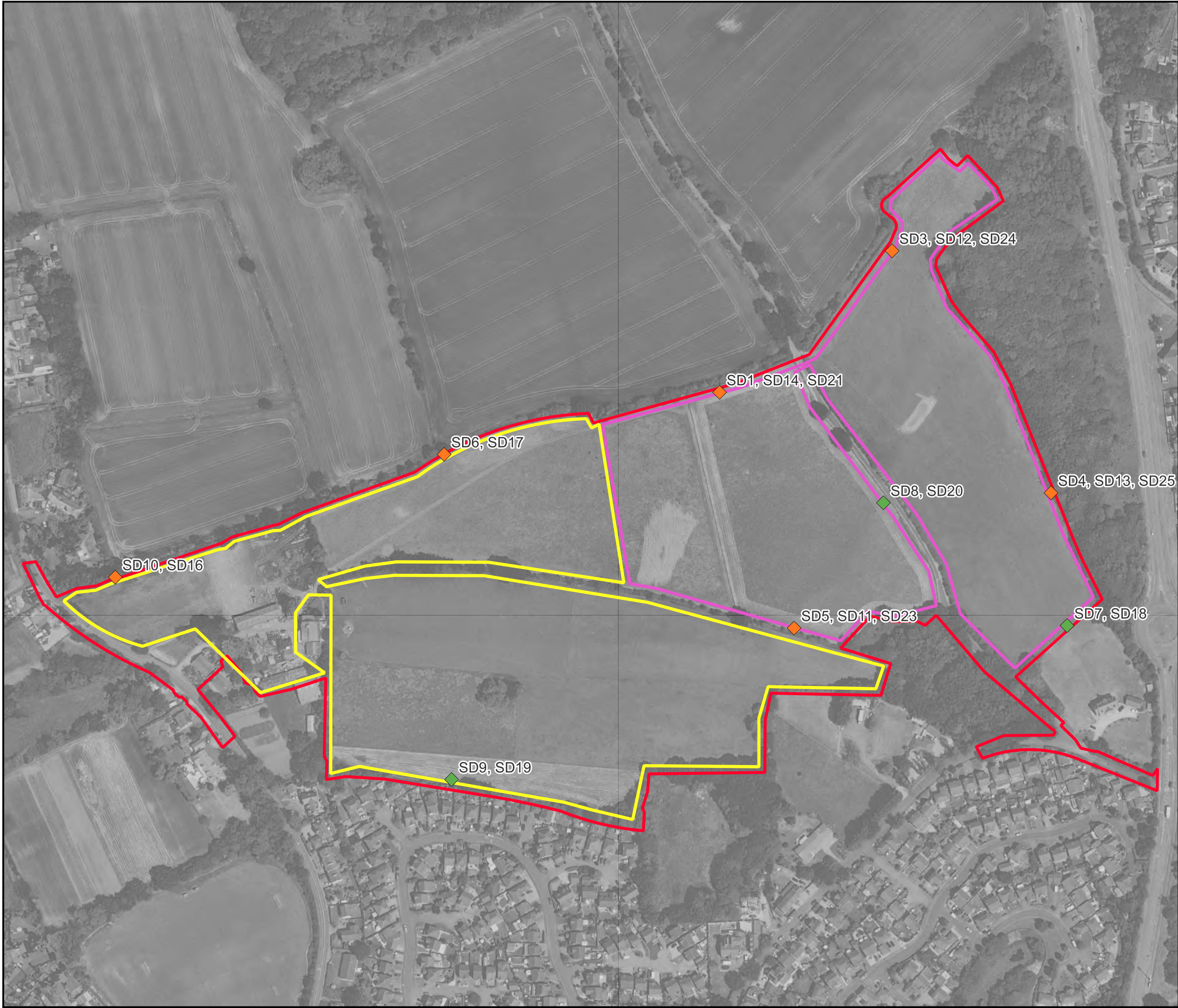
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PLAN ECO2: ECOLOGICAL
FEATURES

Rev: C
Dec 2024

PLAN ECO3
Bat Survey Effort



KEY:

SITE BOUNDARY

AUTOMATED BAT DETECTOR LOCATIONS

◆ **JUNE / AUGUST**

◆ **MAY / JULY / SEPTEMBER**

WALKED BAT SURVEY TRANSECTS

TRANSECT 1

TRANSECT 2

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**PLAN ECO3: BAT SURVEY
EFFORT**

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PLAN ECO4

Bat Emergence / Re-entry Survey effort



KEY:

-  SITE BOUNDARY
-  BUILDING
-  EMERGENCE AND RE-ENTRY SURVEY POSITIONS



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PLAN ECO4: BAT EMERGENCE
AND RE-ENTRY SURVEY
EFFORT

Rev: C
Dec 2024

PLAN ECO5

Early May Breeding Bird Survey Results



KEY:

- SITE BOUNDARY
- COMMUTING BIRDS
- BREEDING BIRDS
- ➔ DIRECTION OF TRAVEL

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11482: LAND AT CHAPEL LANE,
WIDNES

PLAN ECO5: EARLY MAY
BREEDING BIRD SURVEY

Rev: C
Dec 2024

PLAN ECO6

Late May Breeding Bird Survey Results



KEY:

- SITE BOUNDARY
- COMMUTING BIRDS
- BREEDING BIRDS
- DIRECTION OF TRAVEL

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11482: LAND AT CHAPEL LANE,
WIDNES

PLAN ECO6: LATE MAY
BREEDING BIRD SURVEY

Rev: C
Dec 2024

PLAN ECO7

June Breeding Bird Survey Results



KEY:

- SITE BOUNDARY
- COMMUTING BIRDS
- BREEDING BIRDS
- DIRECTION OF TRAVEL

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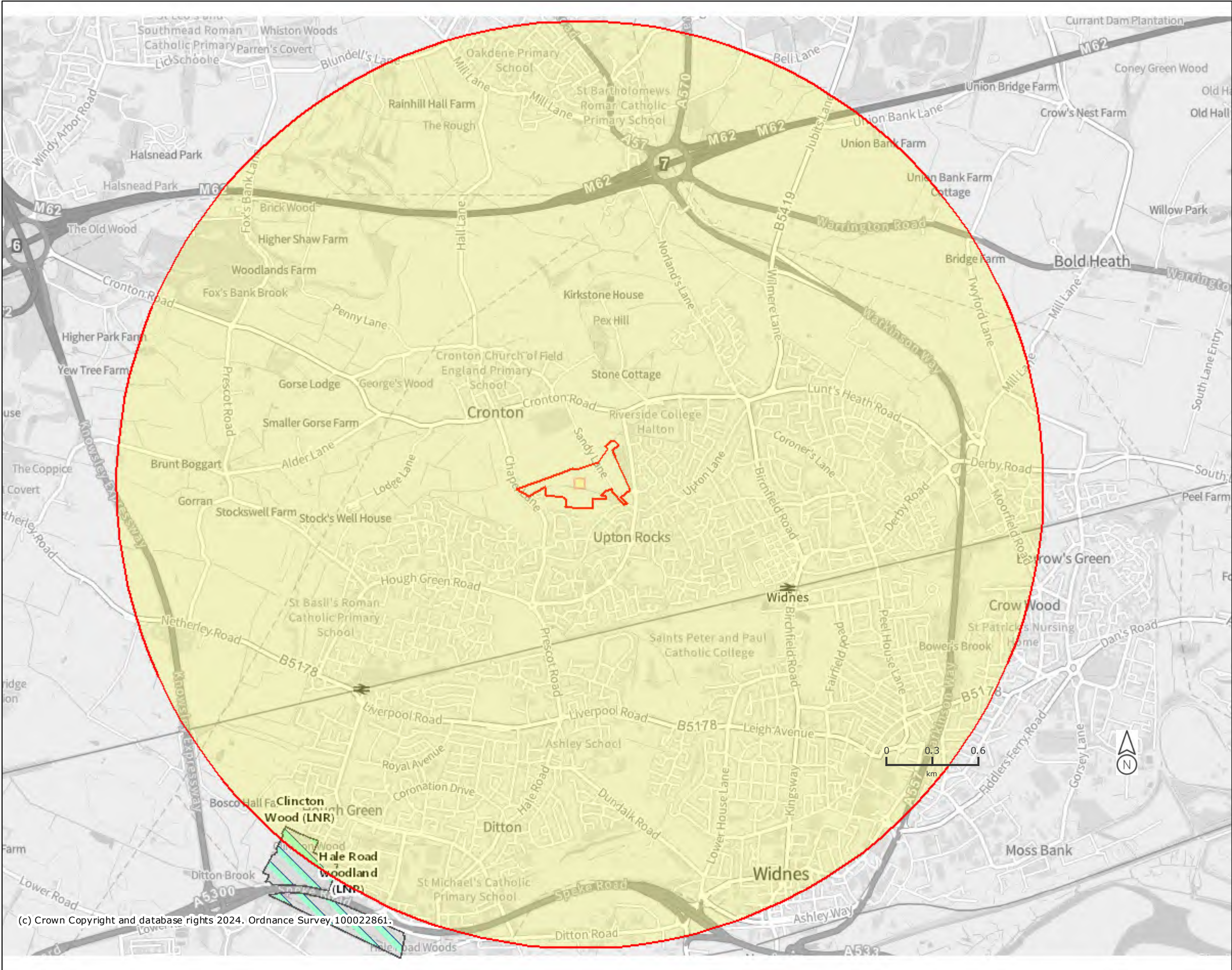
PLAN ECO7: JUNE BREEDING
BIRD SURVEY

Rev: C
Dec 2024

APPENDICES

APPENDIX 1

Information Downloaded From MAGIC



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

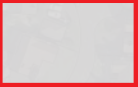
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APPENDIX 2

Illustrative Masterplan

Key

 Site Boundary



 n*ORTH

0m 20m 40m 60m 80m 100m

Scale 1:2,500 (@A3)

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e*SCAPE
urbanists

Project Title
Chapel Lane, Widnes

e*SCAPE Job No.
022-009

Client
Taylor Wimpey North West

Drawing Number
022-009-P005

Revision
REV G

Drawing Title
Illustrative Masterplan

Scale
1:2,500 @ A3

Date
December '24

APPENDIX 3

Example Bat Boxes / Bricks

Bat Boxes

Habibat Bat Box (Rendering)

The Habibat Bat Box is a large, solid box made of insulating concrete with an internal roost space, which can be incorporated into the fabric of a building as it is built or renovated. A variety of facings can be fitted to suit any existing brick, wood, stonework or rendered finish, rendering the box unobtrusive and aesthetically pleasing.

The Habibat box is suitable for species which are commonly found roosting in buildings in the UK.

Height: 440mm, Width: 215mm, Depth: 102mm, Weight: 8kg

Please note that the Habibat box should be located on southerly aspects and positioned ideally near the eaves or gable apex of the property with a minimum of 2m but preferably 5-7m above the ground. Placement above windows, doors and wall climbing plants should be avoided.



Enclosed Bat Box B

This bat box is designed specifically for the pipistrelle bats, providing a discrete roosting feature which is available in all brick types.

Bats are contained within the bat box itself, within which several roosting zones are provided.

This feature is maintenance free and ideal for new build & conservation work

*Height: 290mm
Width: 215mm*

Please note that this box is designed to be installed flush with a wall.

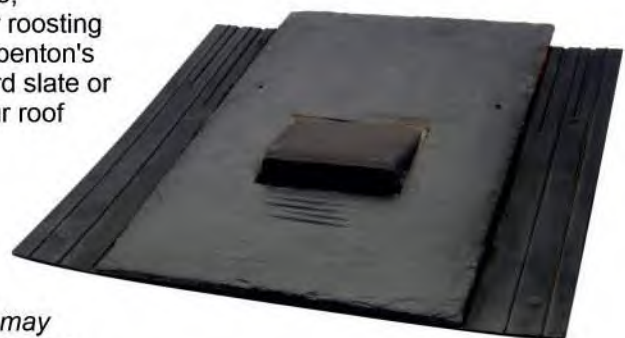


Habibat Bat Access Slate

The Bat Access Slate consists of a standard sized slate, with a capped vent which allows access to roof felt (for roosting Pipistrelles) or roof space (for Serotine, Leisler's, Daubenton's and Barbastelle Bats). We can supply either a standard slate or custom slate that is coloured and sanded to match your roof exactly.

*Height: 215mm
Width: 65mm
Depth: 80mm*

Habibat Bat Access Slates are made to order and you may need to provide a slate to the manufacturer for customisation. Slates are shipped direct from the manufacturer and will incur a shipping cost of £30-40 (ex VAT) for between one and ten slates. Delivery time is expected to be 2 - 3 weeks.



Images and text adapted from manufacturer's websites:

www.ibstock.com/eco-products
www.habibat.co.uk

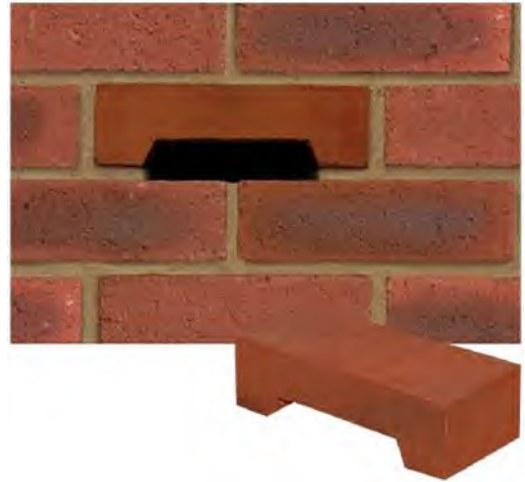
Bat Boxes

Ibstock Bat Box A

A discrete, easy to install single bat brick that allows bats to create a natural home habitat within the cavity of the building

*Height: 215mm
Width: 65mm*

Please note that this box is designed to be installed flush with a wall.



Enclosed Bat Box B

This bat box is designed specifically for the pipistrelle bats, providing a discrete roosting feature which is available in all brick types.

Bats are contained within the bat box itself, within which several roosting zones are provided.

This feature is maintenance free and ideal for new build & conservation work

*Height: 290mm
Width: 215mm*

Please note that this box is designed to be installed flush with a wall.



1FQ Bat Box

Designed to be installed onto buildings and can be painted to match the house design.

*Woodcrete (75% wood sawdust, concrete and clay mixture)
Width: 35cm
Height: 60cm
Weight: 15.8kg*

Images and text adapted from manufacturer's websites:

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www.habibat.co.uk

APPENDIX 4

Example Bird Boxes

Bird Boxes

Ibstock Swift Box

A specially designed Swift nesting feature which can be integrated into the fabric of the building.

Size / Width / Height - 327 x 140 x 140mm.



1SP Schwegler Sparrow Terrace

A Woodcrete bird box which allows for several Sparrow pairs to nest in a single location. The box can either be integrated within the fabric of a building or otherwise fitted to the exterior of the building walls.

Brood chamber dimensions: Height: 16cm, Width: 10.5cm, Depth: 15cm

External dimensions: Height: 24.5cm, Width: 43cm, Depth: 20cm



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Examples of Swift Boxes

Ibstock Swift Box

A specially designed Swift nesting feature which can be integrated into the fabric of the building.

Size / Width / Height - 327 x 140 x 140mm.



Schwegler Type 25 Nest Brick

Designed for installation into the fabric of a building, this box is suitable for swifts.

Woodcrete

Entrance hole 55 x 33mm

Dimensions 265mm wide x 220mm deep x 180mm high

Weight 8.8kg



Green & Blue Swift Box

Designed for installation into the fabric of buildings. Cast concrete construction.

Size / Width / Height - 440 x 215 x 160mm.



APPENDIX 5

Example Insect Hotels

Insect Boxes

Vivarapro Woodstone Insect Block



Dimensions
Height: 27cm
Width: 18.5cm
Depth: 9cm
Weight: 3.2kg

The Woodstone Insect Block is comprised of WoodStone®, a combination of concrete and wood fibres forming a very durable material which requires little maintenance.

The block is designed to provide habitat for a range of solitary bees as well as ladybirds and lacewings.

The block requires very little maintenance, with replacement of the bamboo tubes only if they have been pulled out or have degraded. The block should be placed in a sunny location facing south and near to adjacent flowers.

The block can be mounted on posts or poles, as well as being built into walls (with removal of the fixings).

Duo-Insect and Ladybird House



Dimensions
Height: 35cm
Width: 24cm
Depth: 18cm

The Duo-Insect and Ladybird House is built using FSC certified wood and provides shelter for hibernating ladybirds as well as opportunities for nesting solitary bees.

The insect house can be mounted on suitable trees preferably in an area that gets morning sun.



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