APPENDIX 13: HISTORIC BUILDINGS BASELINE INFORMATION

East Midlands Intermodal Park
Derbyshire

Historic Building Baseline Information

August 2014

NGR 427840 329530

Sign-off history:

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Executive summary

Goodman Shepherd Group has commissioned Museum of London Archaeology to carry out a historic building assessment in advance of proposed development at East Midlands Intermodal Park, near Etwall, Derbyshire (National Grid Reference 427840 329530)

This desk-based study assesses the impact on built heritage assets. (Please refer to MOLA accompanying report HEA for discussion of archaeology and buried assets)

The findings are:

The site is not within a Conservation Area

There are no listed buildings on site; the nearest listed building is Willington Hill farmhouse and group, 1.5km to the E, now converted to 7 No dwellings.

There are no locally listed buildings on site

The WW2 'pill' box is of interest, relating in part to the former RAF Burnaston No.16 EFTS (latterly Derby Municipal Airport, now the Toyota plant) to the N.

There are 2 late C19th/earlyC20th domestic buildings – a detached house (Round House) and a semi-detached pair of dwellings (Standpipe Cottages), the W half of which is boarded and vacant.

There is a 'curious' brick built building to the W of the Standpipe Cottages, which was probably part of the earlier sewage treatment system on the early C20th OS plan.

The later C20th Sewage Treatment Works facility comprises entirely late C20th utilitarian sheds and modern open-air plant.

Around the boundary of the site, the most proximate buildings are, to the W, Gorse Farm, Nos 1-8 (inclusive) Egginton Road, Old Station & Railway Cottages, Park View, Gorse Farm and Blakely Lodge; and Deans Lodge to the E.

The significance of the built assets overall is LOW- NEGLIGIBLE

1 Introduction

1.1 Origin and scope of the report

1.1.1 Goodman Shepherd Group has commissioned Museum of London Archaeology (MOLA) to carry out a historic building assessment in advance of proposed development at the East midlands Intermodal Park, Etwall, Derbyshire (National Grid Reference 427840 329530: Fig 1).

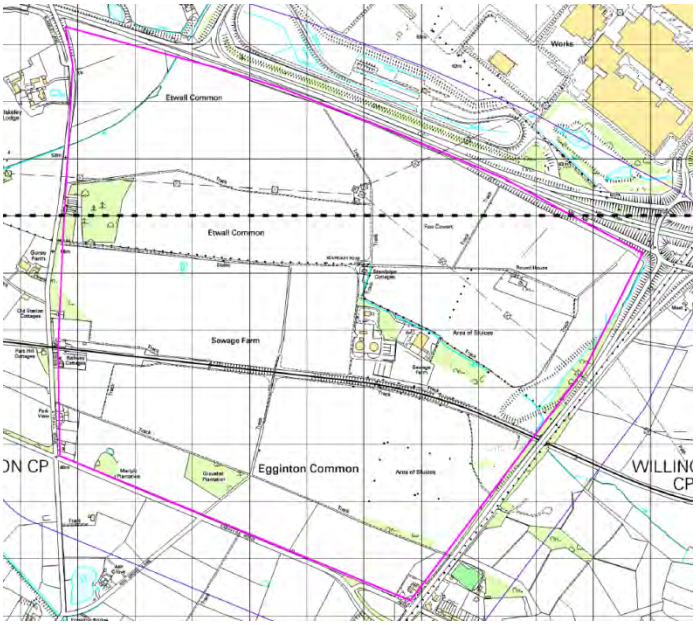


Fig 1 Site (Indicative Only) Not to Scale

1.1.2 This desk-based study assesses the impact of the scheme on built heritage assets It forms a technical appendix in support of an Environmental Statement, assessing the impact of the proposed development (hereafter referred to as the 'site') on the historic environment. It will enable the heritage advisors to the local planning authority (LPA) to formulate an appropriate response in the light of the impact upon any known or possible heritage assets. These are parts of the historic environment which are considered to be significant because of their historic, archaeological, architectural or artistic interest.

1.1.3 This report deals solely with the above ground assets (i.e. designated and undesignated historic structures and conservation areas) on the site or in the vicinity that are relevant to the interpretation of the site are discussed. The report does not assess issues in relation to the setting of above ground assets (e.g. visible changes to historic character and views).

1.1.4 The assessment has been carried out in accordance with the requirements of the National Planning Policy Framework (NPPF) (DCLG 2012; see Section 10 of this report). Under the 'Copyright, Designs and Patents Act' 1988 MOLA retains the copyright to this document.

1.1.5 Note: within the limitations imposed by dealing with historical material and maps, the information in this document is, to the best knowledge of the author and MOLA, correct at the time of writing. Further investigation, more information about the nature of the present buildings, and/or more detailed proposals for redevelopment may require changes to all or parts of the document.

1.2 Designated heritage assets

1.2.1 The site does not contain any nationally designated (protected) heritage assets, such as scheduled monuments, listed buildings or registered parks and gardens and is not specifically designated as an area of archaeological interest by the local planning authority.

1.3 Aims and objectives

1.3.1 The aim of the assessment is to:

- identify the presence of any known or potential heritage assets that may be affected by the proposals;
- describe the significance of such assets, as required by national planning policy (see section 8 for planning framework and Section 5 for methodology used to determine significance); and
- provide recommendations to further assessment where necessary of the historic assets affected, and/or mitigation aimed at reducing or removing completely any adverse impacts upon buried heritage assets and/or their setting.

Fig 2 Aerial Photo (English Heritage)

2 Methodology

2.1.1 For the purposes of this report the documentary and cartographic sources, including results from any archaeological investigations in the site and a study area around it were examined in order to determine the likely nature, extent, preservation and significance of any built heritage assets that may be present within the site or its immediate vicinity and has been used to determine the potential for previously unrecorded heritage assets of any specific chronological period to be present within the site.

2.1.2 In order to set the site into its full historical context, the following sources were consulted:

- English Heritage – information on statutory designations including scheduled monuments and listed buildings
- British National Copyright Library – historic Ordnance Survey maps from the first edition (1860–70s) to the present day;
- Envirocheck/Landmark – historic Ordnance Survey maps from the first edition (1860–70s) to the present day;
- National Air Photograph Library at the National Monuments Record in Swindon – vertical and specialist (oblique) air photographs
- Internet - web-published material including LPA local plan, and information on conservation areas and locally listed buildings.

2.1.3 The assessment included site visits carried out on the 6th & 9th of December 2013.

2.1.4 Fig 2 shows the location of built features referred to, within and around the study area.

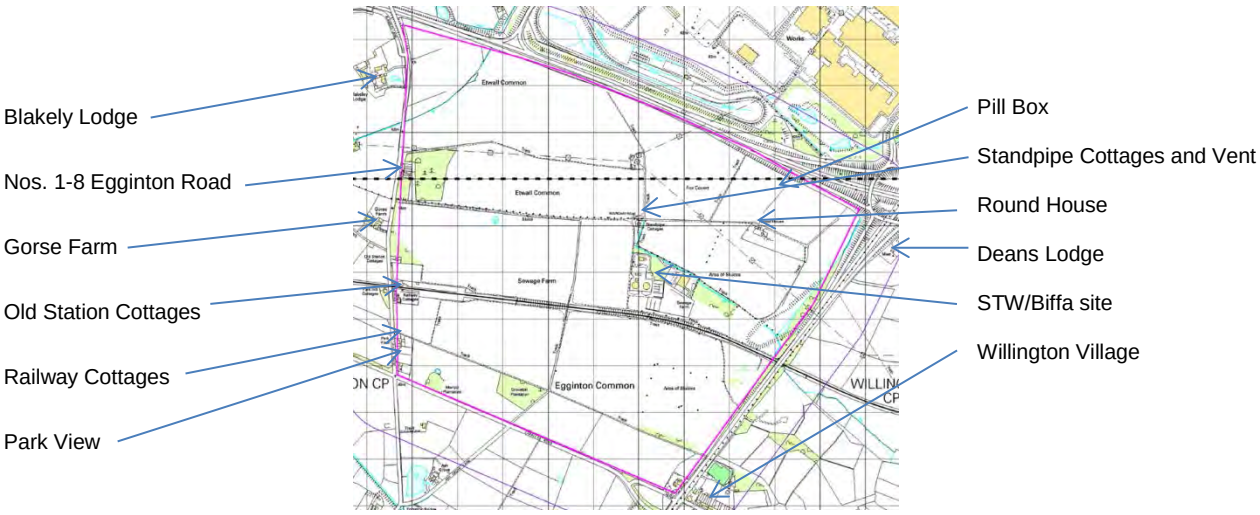


Fig 3 Built Features

2.1.5 Section 10 sets out the criteria used to determine the significance of heritage assets. This is based on four values set out in English Heritage's *Conservation principles, policies and guidance* (2008), and comprise evidential, historical, aesthetic and communal value. The report assesses the likely presence of such assets within (and beyond) the site, factors which may have compromised buried asset survival (i.e. present and previous land use), as well as possible significance.

2.1.6 Section 9 contains a glossary of technical terms. A full bibliography and list of sources consulted may be found in Section 13. This section includes non-archaeological constraints and a list of existing site survey data obtained as part of the assessment.

3 Site location, topography and geology

3.1 Site location

3.1.1 The site, now referred to in part as Etwall Common, but formerly all known as Egginton Common, is situated in Derbyshire, *c* 4km to the SW of the outskirts of the City of Derby. The area is in South Derbyshire District Council administrative area, and the civil parish of Willington.

3.1.2 To the N the site is bounded by the embankment and route of the A50 Trunk road, to the E the A38 trunk road, to the S the development site is defined by the North Staffordshire railway line; the wider site by Carriers Road, and to the West by Egginton Road.

3.1.3 Beyond the A50T to the N lies the Toyota works, a major international business hub on the site of the former Derby Municipal Airport and Burnaston House (Listed Grade II, dismantled circa 1990).The village of Willington lies to the S.

3.2 Topography

3.2.1 The site forms part of a larger low lying part of the plain around the River Trent and River Dove systems.

3.2.2 Relatively flat, the land slopes gently down N-S, (Spot height at Gorse Farm shows 56m AOD; at the Junction of Etwall Road/Carriers Road the level is 49m AOD). The 50m AOD contour runs across the site broadly W-E.

3.3 Geology

3.3.1 Geology is discussed in the accompanying Historic Environment Baseline Information (MOLA 2014).

4 Archaeological and historical background

4.1 Archaeology

4.1.1 Archaeology is discussed in the accompanying Historic Environment Assessment (MOLA 2013)

4.2 Map regression

4.2.1 Built elements within the site are found principally along and off Boundary Lane.

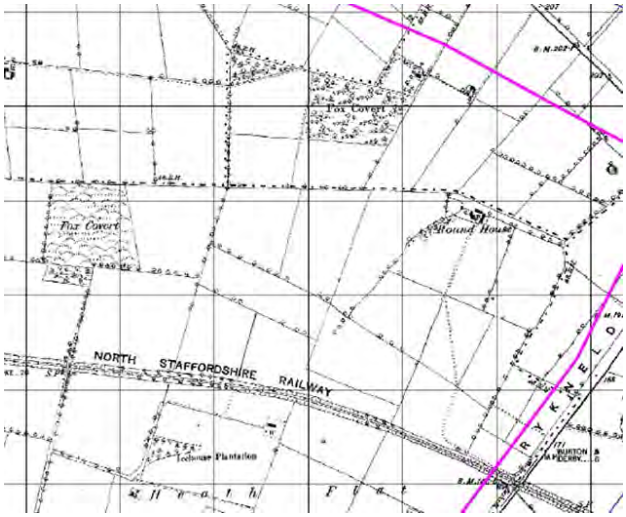


Fig 4 OS Map Extract 1887/1888

4.2.2 Fig 4 indicates that Round House was in existence in the late C19th although there appears not to be a link with the Egginton Road, the site being served via a trackway off Rykneld Road (now the A38). There is no reference to sewage treatment at this stage.

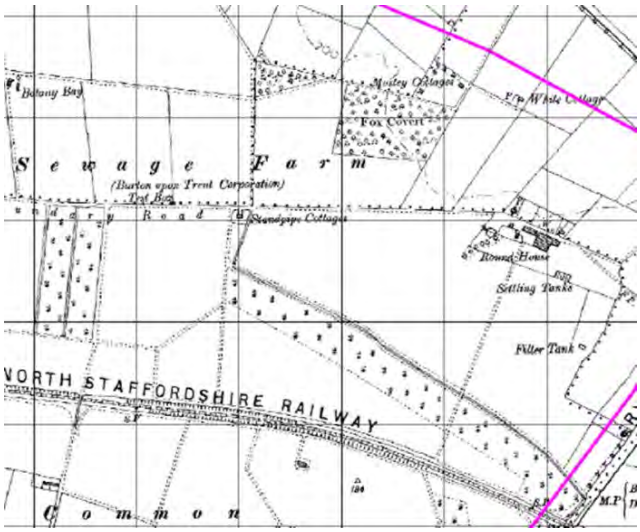


Fig 5 OS Map Extract 1901

4.2.3 Standpipe Cottages, Boundary Road and various references to plant and the title 'Sewage farm' appear in 1901(Fig 5). Additional dwellings are indicated to the N of Round House – Mosley Cottages and White Cottage. There is also a direct link between Standpipe Cottages and Rykneld.

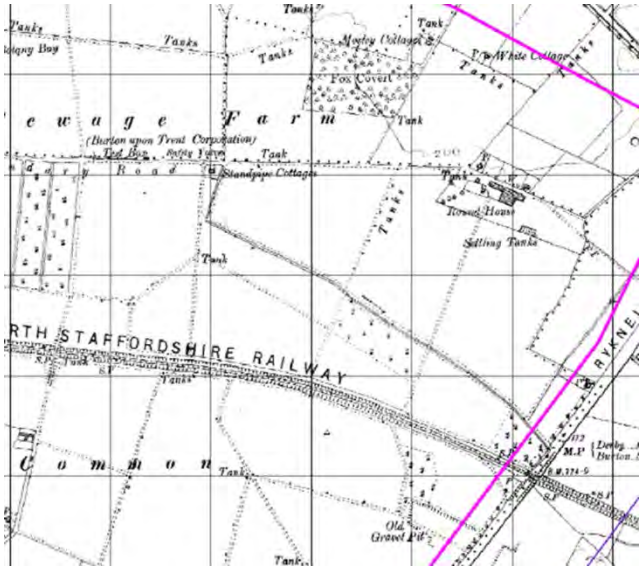


Fig 6 OS Map Extract 1924

4.2.4 The map of 1924 (Fig 6) shows little change, except references to more 'tanks' in association with the sewage farm use.

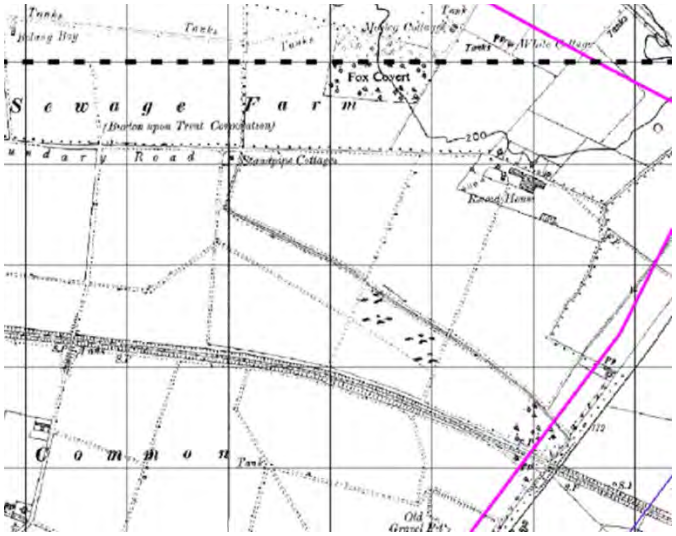


Fig 7 OS Map Extract 1955

4.2.5 There is a gap in the available mapping, the next in the regression being 1955, which shows little change in real terms (Fig 7). The airfield (just off the image to the NE) was laid out in the early 1930s and became RAF Burnaston in 1938. The defences, for obvious reasons, were not mapped.

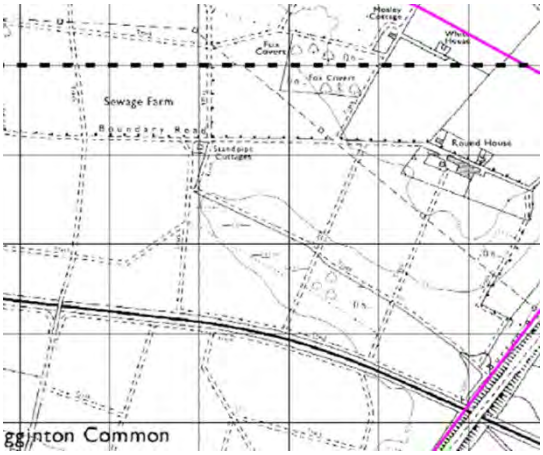


Fig 8 OS Map Extract 1973/1976

4.2.6 The main addition to the local scene by 1973/1976 (Fig 8) was the overhead line and pylons traversing the site.

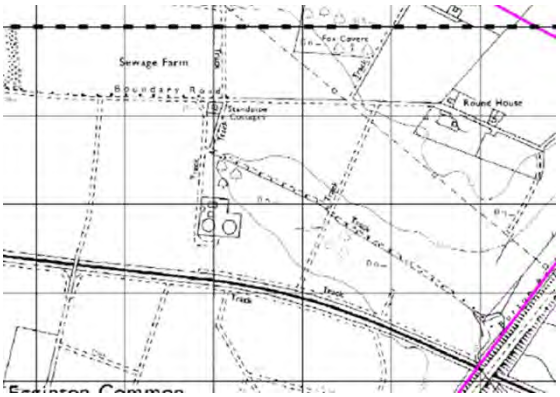


Fig 9 OS Map Extract 1993

4.2.7 By 1993, the newly sited sewage treatment plant is evident to the S of Standpipe Cottages. The improved A50T was under construction further W at this time.

Fig 10 OS Map Extract 2013

4.2.8 The 2013 edition (Fig 10) shows the full extent of the STW and Biffa site, also another phase of the pylon system is apparent. The edge of the fully operational A50T is shown in the NE corner of the plate.

4.3 Buildings

4.3.1 **Round House** A mid-C19th house in brick and tile, uPVC windows and later extensions and additions.

Fig11 View from W (MOLA)

4.3.2 Standpipe Cottages – Late C19/Early C20th brick and tile semi-detached cottages, uPVC windows and later additions. W half vacant and boarded up.

Fig12 View from N (MOLA)

4.3.3 The 'curious' building – This hexagonal building, in engineering brick with the remains of a lead rood behind an up-stand parapet, housed the pump and 'standpipe' from which the cottages are named. It is bricked up and therefore access was not possible. It is not known if any plant remains in situ.

Fig 13 View from W (MOLA)

4.3.4 **The Pill Box** is described as '*One of a number of cantilevered roofed pill boxes designed and constructed in various parts of the country at the beginning of World War II, by F C Construction Co. Ltd*.'

Fig 14 Pill Box looking N (MOLA)

4.3.5 The FCC/Cantilever design was specifically intended for airfield defence. It is thought that this may be the only one of this type surviving in Derbyshire[1]. At the time of writing there are thought to be about 40 of the cantilever type left in UK, none of which appear in the list of 20 or so pill boxes on the National Heritage Register.

4.3.6 This 'model' was a unique design in defence architecture terms; the cantilevered roof giving a 360 degree field of fire without obstruction. The pillbox is circular in shape, and comprises a roof that is detached from the walls, supported by a central

[1] (Nationally) *The numbers of each pillbox type cannot be known exactly because the Defence of Britain database is imperfect—admitting omissions, duplicates, misidentifications etc. Some commentators give the Type 22 as the most common, but the database gives the Type 24 as the most common*. (The Pillbox Study Group website)

pillar. Below the embrasure was a curved rail on which machine guns would have been mounted. (See Fig10)

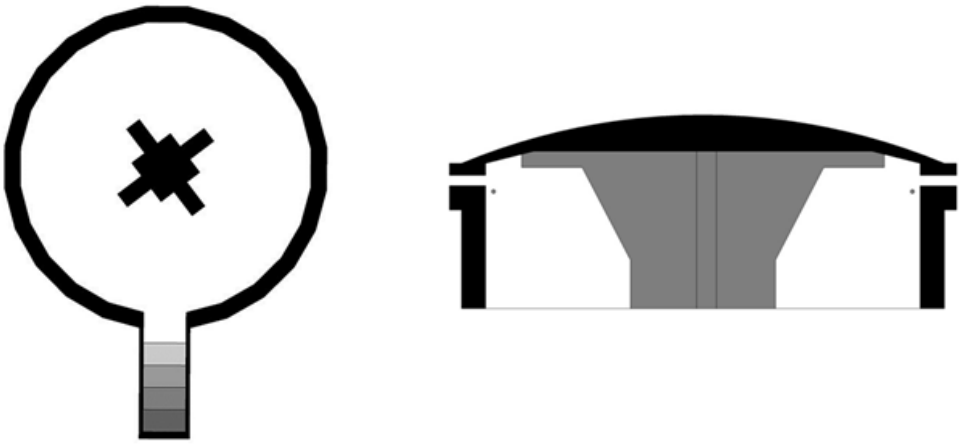


Fig 15 Plan and Section of Cantilevered Pill Box (NTS)

4.3.7 This pill box is probably the last remaining element of the defences of RAF Burnaston. The airfield was cleared to build the Toyota factory and this pillbox is believed to be the only one left out of ten or so originally situated around the site.

4.3.8 Although not mapped, the pillbox can be seen on the aerial photograph within a strip of rough grassland running parallel with the A50, which sits within a field currently used for arable farming (See Fig 2).

4.3.9 It is in something of a state of neglect and deterioration, however, and has only escaped vandalism by virtue, it is suggested, of isolation.

4.3.10 **Sewage Treatment Works and Biffa Site** – a group of late C20th sheds and ST plan in a landscaped setting. These will mostly remain post-development.

Fig 16 Long view from N and view looking E at Gate (MOLA)

4.3.11 **Beyond the site** – The most proximate buildings without the site are noted as: Blakely Lodge, Nos. 1-8 Egginton Road, Gorse Farm, Old Station Cottages, Railway Cottages, Park View (all to the W) and Deans Lodge (to the E). None of the buildings around the site are listed, locally listed or within a Conservation Area.

5 Statement of significance

5.1 Introduction

5.1.1 In accordance with the NPPF, this is followed by a statement on the likely potential and significance of built heritage assets within the site.

5.2 Significance

5.2.1 'Significance' lies in the value of a heritage asset to this and future generations because of its heritage interest, which may be archaeological, architectural, artistic or historic. Archaeological interest includes an interest in carrying out an expert investigation at some point in the future into the evidence a heritage asset may hold of past human activity, and may apply to standing buildings or structures as well as buried remains.

5.2.2 Known and potential heritage assets within the site and its vicinity have been identified from national and local designations, HER data and expert opinion. The determination of the significance of these assets is based on statutory designation and/or professional judgement against four values (EH 2008):

- *Evidential value*: the potential of the physical remains to yield evidence of past human activity. This might take into account date; rarity; state of preservation; diversity/complexity; contribution to published priorities; supporting documentation; collective value and comparative potential.
- *Aesthetic value*: this derives from the ways in which people draw sensory and intellectual stimulation from the heritage asset, taking into account what other people have said or written;
- *Historical value*: the ways in which past people, events and aspects of life can be connected through heritage asset to the present, such a connection often being illustrative or associative;
- *Communal value*: this derives from the meanings of a heritage asset for the people who know about it, or for whom it figures in their collective experience or memory; communal values are closely bound up with historical, particularly associative, and aesthetic values, along with and educational, social or economic values.

5.2.3 Table 1 indicates examples of the significance of designated and non-designated heritage assets.

Table 1: Significance of heritage assets

Heritage asset description	Significance
World heritage sites Scheduled monuments Grade I and II* listed buildings English Heritage Grade I and II* registered parks and gardens Protected Wrecks Heritage assets of national importance	Very high (International / national)
English Heritage Grade II registered parks and gardens Conservation areas Designated historic battlefields Grade II listed buildings Burial grounds Protected heritage landscapes (e.g. ancient woodland or historic hedgerows) Heritage assets of regional or county importance	High (national/ regional/ county)
Heritage assets with a district value or interest for education or cultural appreciation Locally listed buildings	Medium (District)

Heritage asset description	Significance
Heritage assets with a local (i.e. parish) value or interest for education or cultural appreciation	Low (Local)
Historic environment resource with no significant value or interest	Negligible
Heritage assets that have a clear potential, but for which current knowledge is insufficient to allow significance to be determined	Uncertain

Unless the nature and exact extent of buried archaeological remains within any given area has been determined through prior investigation, the significance of heritage assets which comprise below ground archaeological remains is often uncertain.

Built heritage and above ground archaeological remains (egg earthworks and landscapes) are visible and tangible and, where appropriate, significance is considered in more detail. 'Built heritage' refers to those aspects of the buildings visible on the site that possess noteworthy architectural or historic interest. These aspects of the buildings have been identified and their interest has been rated very broadly, using the published criteria for statutory listing of buildings for their special architectural or historic interest, in English Heritage 'conservation principles' (EH 2008) and applicable guidance published by English Heritage on selecting buildings for listing (or designation as heritage assets) (2007) and on investigating and recording buildings archaeologically (2006). Criteria for listing includes:

- 'architectural interest:… of importance to the nation for… their architectural design, decoration and craftsmanship; …important examples of particular building types and techniques… and significant plan forms;
- 'historic interest: … illustrate important aspects of the nation's social, economic, cultural or military history;
- 'close historical association with nationally important people or events;
- 'group value, especially where buildings comprise an important architectural or historic unity or a fine example of planning…'

Evidential and aesthetic values correspond most closely to architectural interest, in terms of the published criteria for listing, while historical and communal values correspond to historic interest. These values emphasise national importance as being necessary for statutory listing, but are also useful in considering the particular architectural or historic interest of any building or structure.

5.2.4 The built elements on and around[2] site are not listed, locally listed or within any designated area of heritage interest.

5.2.5 The pill box, despite being of bespoke design for its purpose and one of few examples of its type remaining, is not considered to be an asset of sufficient completeness, quality or interest to warrant being listed. It is considered that its significance is LOW.

5.2.6 However, in terms of local rarity and being the possibly the last remnant of an important local war-time institution, the pill box would be worthy of a programme of recording, at least to RCHM/EH level 2.

5.2.7 The curious building is of very localised interest, and is assessed as LOW-NEGLIGIBLE significance.

5.2.8 It is concluded that collectively the rest of buildings represent an historic

[2] With the exception of Willington Hill Farm, listed Grade II

environment resource with *no significant value or interest* and therefore significance is considered to be NEGLIGIBLE.

6 Conclusion and recommendations

6.1.1 In conclusion, the built elements of the site have been identified and considered:

- The site is not within a Conservation Area
- There are no listed buildings on site; the nearest listed building is Willington Hill farmhouse and group, 1.5km to the E, now converted to 7 No dwellings.
- There are no locally listed buildings on site
- The WW2 'pill' box is of interest, relating in part to the former RAF Burnaston No.16 EFTS (latterly Derby Municipal Airport, now the Toyota plant) to the N.
- There are 2 late C19th/earlyC20th domestic buildings – a detached house (Round House) and a semi-detached pair of dwellings (Standpipe Cottages), the W half of which is boarded and vacant.
- There is a 'curious' brick built building to the W of the Standpipe Cottages, which was part of the earlier sewage treatment system on the early C20th OS plan.
- The later C20th Sewage Treatment Works facility comprises entirely late C20th utilitarian sheds and modern open-air plant.
- Around the boundary of the site, the most proximate buildings are, to the W, Gorse Farm, Nos 1-8 (inclusive) Egginton Road, Old Station & Railway Cottages, Park View, Gorse Farm and Blakely Lodge; and Deans Lodge to the E.

6.1.2 The pill box is of LOW significance, the remainder of the buildings of NEGLIGIBLE significance.

6.1.3 Recommendations: It is recommended that a programme of recording be carried out on the pill box, at least to RCHM/EH Level 2, prior to commencement of works and the findings deposited in the relevant archives, to be agreed with the Local Planning Authority at the appropriate time.

7 Planning framework

7.1 Statutory protection

Scheduled Monuments

7.1.1 Nationally important archaeological sites (both above and below-ground remains) may be identified and protected under the *Ancient Monuments and Archaeological Areas Act 1979*. An application to the Secretary of State is required for any works affecting a Scheduled Monument or its setting.

Planning (Listed Buildings and Conservation Areas) Act 1990

7.1.2 The Act sets out the legal requirements for the control of development and alterations which affect buildings, including those which are listed or in conservation areas. Buildings which are listed or which lie within a conservation area are protected by law. Grade I are buildings of exceptional interest. Grade II* are particularly significant buildings of more than special interest. Grade II are buildings of special interest, which warrant every effort being made to preserve them.

Human remains

7.1.3 Development affecting any former burial ground is regulated by statute, principally the *Burial Act 1857*, the *Disused Burial Grounds Act* 1884 and 1981, and the *Pastoral Measure 1983*. The prior exhumation and re-interment of human remains is required and must be carried out under the terms of a Burial Licence, to be obtained from the Ministry of Justice.

7.1.4 Where likely survival of human burials in ground consecrated under the rites of the Church of England has been identified in a Historic Environment Assessment it is possible that a 'Faculty' may need to be sought by the developer in addition to Planning Consent. Faculty is issued by the office of the Chancellor of the Diocesan authorities in accordance with the provision of the *Faculty Jurisdiction Measure* 1964 (as amended by the *Care of Churches and Ecclesiastical Jurisdiction Measure* 1991). Separately, exhumation of any human remains should be notified to the Ministry of Justice who may also need to issue a Burial Licence. A Burial Licence is required from the Ministry of Justice if the remains are not intended for reburial in consecrated ground (or if this is to be delayed - for example where archaeological or scientific analysis takes place first).

7.1.5 Under the *Town and Country Planning (Churches, Places of Religious Worship and Burial Grounds) Regulations 1930*, the removal and re-interment of human remains should be in accordance with the direction of the local Environmental Health Officer.

7.2 National Planning Policy Framework

7.2.1 The Government issued the National Planning Policy Framework (NPPF) in March 2012 (DCLG 2012). One of the 12 core principles that underpin both plan-making and decision-taking within the framework is to ‘conserve heritage assets in a manner appropriate to their significance, so that they can be enjoyed for their contribution to the quality of life of this and future generations’ (DCLG 2012 para 17). It recognises that heritage assets are an irreplaceable resource (para 126), and requires the significance of heritage assets to be considered in the planning process, whether designated or not. The contribution of setting to asset significance needs to be taken into account (para 128). The NPPF encourages early engagement (i.e. pre-application) as this has significant potential to improve the efficiency and effectiveness of a planning application and can lead to better outcomes for the local community (para 188).

7.2.2 NPPF Section 12: Conserving and enhancing the historic environment, is produced

in full below:

Para 126. Local planning authorities should set out in their Local Plan a positive strategy for the conservation and enjoyment of the historic environment, including heritage assets most at risk through neglect, decay or other threats. In doing so, they should recognise that heritage assets are an irreplaceable resource and conserve them in a manner appropriate to their significance. In developing this strategy, local planning authorities should take into account:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the wider social, cultural, economic and environmental benefits that conservation of the historic environment can bring;
- the desirability of new development making a positive contribution to local character and distinctiveness; and
- opportunities to draw on the contribution made by the historic environment to the character of a place.

Para 127. When considering the designation of conservation areas, local planning authorities should ensure that an area justifies such status because of its special architectural or historic interest, and that the concept of conservation is not devalued through the designation of areas that lack special interest.

Para 128. In determining applications, local planning authorities should require an applicant to describe the significance of any heritage assets affected, including any contribution made by their setting. The level of detail should be proportionate to the assets' importance and no more than is sufficient to understand the potential impact of the proposal on their significance. As a minimum the relevant historic environment record should have been consulted and the heritage assets assessed using appropriate expertise where necessary. Where a site on which development is proposed includes or has the potential to include heritage assets with archaeological interest, local planning authorities should require developers to submit an appropriate desk-based assessment and, where necessary, a field evaluation.

Para 129. Local planning authorities should identify and assess the particular significance of any heritage asset that may be affected by a proposal (including by development affecting the setting of a heritage asset) taking account of the available evidence and any necessary expertise. They should take this assessment into account when considering the impact of a proposal on a heritage asset, to avoid or minimise conflict between the heritage asset's conservation and any aspect of the proposal.

Para 130. Where there is evidence of deliberate neglect of or damage to a heritage asset the deteriorated state of the heritage asset should not be taken into account in any decision.

Para 131. In determining planning applications, local planning authorities should take account of:

- the desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation;
- the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality; and
- the desirability of new development making a positive contribution to local character and distinctiveness.

Para 132: When considering the impact of a proposed development on the significance of a designated heritage asset, great weight should be given to the asset's conservation. The more important the asset, the greater the weight should be. Significance can be harmed or lost through alteration or destruction of the heritage asset or development within its setting. As heritage assets are irreplaceable, any harm or loss should require clear and convincing justification. Substantial harm to or loss of a grade II listed building, park or garden should be exceptional. Substantial harm to or loss of designated heritage assets of the highest significance, notably scheduled monuments, protected wreck sites, battlefields, grade I and II* listed buildings, grade I and II* registered parks and gardens, and World Heritage Sites, should be wholly exceptional.

Para 133. Where a proposed development will lead to substantial harm to or total loss of significance of a designated heritage asset, local planning authorities should refuse consent, unless it can be demonstrated that the substantial harm or loss is necessary to achieve substantial public benefits that outweigh that harm or loss, or all of the following apply:

- the nature of the heritage asset prevents all reasonable uses of the site; and
- no viable use of the heritage asset itself can be found in the medium term through appropriate marketing that will enable its conservation; and
- conservation by grant-funding or some form of charitable or public ownership is demonstrably not possible; and
- the harm or loss is outweighed by the benefit of bringing the site back into use.

Para 134. Where a development proposal will lead to less than substantial harm to the significance of a designated heritage asset, this harm should be weighed against the public benefits of the proposal, including securing its optimum viable use.

Para 135. The effect of an application on the significance of a non-designated heritage asset should be taken into account in determining the application. In weighing applications that affect directly or indirectly non designated heritage assets, a balanced judgement will be required having regard to the scale of any harm or loss and the significance of the heritage asset.

Para 136. Local planning authorities should not permit loss of the whole or part of a heritage asset without taking all reasonable steps to ensure the new development will proceed after the loss has occurred.

Para 137. Local planning authorities should look for opportunities for new development within Conservation Areas and World Heritage Sites and within the setting of heritage assets to enhance or better reveal their significance. Proposals that preserve those elements of the setting that make a positive contribution to or better reveal the significance of the asset should be treated favourably.

Para 138. Not all elements of a World Heritage Site or Conservation Area will necessarily contribute to its significance. Loss of a building (or other element) which makes a positive contribution to the significance of the Conservation Area or World Heritage Site should be treated either as substantial harm under paragraph 133 or less than substantial harm under paragraph 134, as appropriate, taking into account the relative significance of the element affected and its contribution to the significance of the Conservation Area or World Heritage Site as a whole.

Para 139. Non-designated heritage assets of archaeological interest that are demonstrably of equivalent significance to scheduled monuments, should be considered subject to the policies for designated heritage assets.

Para 140. Local planning authorities should assess whether the benefits of a proposal for enabling development, which would otherwise conflict with planning policies but which would secure the future conservation of a heritage asset, outweigh the disbenefits of departing from those policies.

Para 141. Local planning authorities should make information about the significance of the historic environment gathered as part of plan-making or development management publicly accessible. They should also require developers to record and advance understanding of the significance of any heritage assets to be lost (wholly or in part) in a manner proportionate to their importance and the impact, and to make this evidence (and any archive generated) publicly accessible. However, the ability to record evidence of our past should not be a factor in deciding whether such loss should be permitted.

7.3 Local planning policy

7.3.1 Following the Planning and Compulsory Purchase Act 2004, Planning Authorities have replaced their Unitary Development Plans, Local Plans and Supplementary Planning Guidance with a new system of Local Development Frameworks (LDFs). UDP policies are either ‘saved’ or ‘deleted’. In most cases heritage policies are likely

to be ‘saved’ because there have been no significant changes in legislation or advice at a national level.

7.3.2 South Derbyshire District Council is in the process of developing Local Policy and the emergent Core Strategy is in chain. The relevant policy basis in this case is, for the time being, likely to be the National Planning Policy Framework 2012 refined by any local non-statutory advice. The council issued the Pre-Submission Local Plan Part 1 in March 2014.

8 Non-heritage constraints

8.1.1 It is anticipated that live services will be present on the site; there are evidently pylons, the locations of which have not been identified by this report. There is a sub-ground reservoir which may be a constraint in its own right, and the ground may be contaminated to some degree by former uses. Other than this, no non-archaeological constraints to any archaeological or heritage based fieldwork have been identified within the site at this early stage.

8.1.2 Note: the purpose of this section is to highlight to decision makers any relevant non-archaeological constraints identified during the study, that might affect future archaeological field investigation or heritage assessment on the site (should this be recommended).

8.1.3 Under the Health & Safety at Work Act 1974 and subsequent regulations, all organisations are required to protect their employees as far as is reasonably practicable by addressing health and safety risks. The contents of this section are intended only to support organisations operating on this site in fulfilling this obligation and do not comprise a comprehensive risk assessment.

9 Glossary

Alluvium	Sediment laid down by a river. Can range from sands and gravels deposited by fast flowing water and clays that settle out of suspension during overbank flooding. Other deposits found on a valley floor are usually included in the term alluvium (e.g. peat).
Archaeological Priority Area/Zone	Areas of archaeological priority, significance, potential or other title, often designated by the local authority.
Brickearth	A fine-grained silt believed to have accumulated by a mixture of processes (e.g. wind, slope and freeze-thaw) mostly since the Last Glacial Maximum around 17,000BP.
B.P.	Before Present, conventionally taken to be 1950
Bronze Age	2,000–600 BC
Building recording	Recording of historic buildings (by a competent archaeological organisation) is undertaken *'to document buildings, or parts of buildings, which may be lost as a result of demolition, alteration or neglect',* amongst other reasons. Four levels of recording are defined by Royal Commission on the Historical Monuments of England (RCHME) and English Heritage. Level 1 (basic visual record); Level 2 (descriptive record), Level 3 (analytical record), and Level 4 (comprehensive analytical record)
Built heritage	Upstanding structure of historic interest.
Colluvium	A natural deposit accumulated through the action of rainwash or gravity at the base of a slope.
Conservation area	An area of special architectural or historic interest the character or appearance of which it is desirable to preserve or enhance. Designation by the local authority often includes controls over the demolition of buildings; strengthened controls over minor development; and special provision for the protection of trees.
Cropmarks	Marks visible from the air in growing crops, caused by moisture variation due to subsurface features of possible archaeological origin (i.e. ditches or buried walls).
Cut-and-cover [trench]	Method of construction in which a trench is excavated down from existing ground level and which is subsequently covered over and/or backfilled.
Cut feature	Archaeological feature such as a pit, ditch or well, which has been cut into the then-existing ground surface.
Devensian	The most recent cold stage (glacial) of the Pleistocene. Spanning the period from *c* 70,000 years ago until the start of the Holocene (10,000 years ago). Climate fluctuated within the Devensian, as it did in other glacials and interglacials. It is associated with the demise of the Neanderthals and the expansion of modern humans.
Early medieval	AD 410 – 1066. Also referred to as the Saxon period.
Evaluation (archaeological)	A limited programme of non–intrusive and/or intrusive fieldwork which determines the presence or absence of archaeological features, structures, deposits, artefacts or ecofacts within a specified area.
Excavation (archaeological)	A programme of controlled, intrusive fieldwork with defined research objectives which examines, records and interprets archaeological remains, retrieves artefacts, ecofacts and other remains within a specified area. The records made and objects gathered are studied and the results published in detail appropriate to the project design.
Findspot	Chance find/antiquarian discovery of artefact. The artefact has no known context, is either residual or indicates an area of archaeological activity.
Geotechnical	Ground investigation, typically in the form of boreholes and/or trial/test pits, carried out for engineering purposes to determine the nature of the subsurface deposits.
Head	Weathered/soliflucted periglacial deposit (ie moved downslope through natural processes).
Heritage asset	A building, monument, site, place, area or landscape positively identified as having a degree of significance meriting consideration in planning decisions. Heritage assets are the valued components of the historic environment. They include designated heritage assets and assets identified by the local planning authority (including local listing).
Historic environment assessment	A written document whose purpose is to determine, as far as is reasonably possible from existing records, the nature of the historic environment resource/heritage assets within a specified area.
Historic Environment Record (HER)	Archaeological and built heritage database held and maintained by the County authority. Previously known as the Sites and Monuments Record
Holocene	The most recent epoch (part) of the Quaternary, covering the past 10,000 years during which time a warm interglacial climate has existed. Also referred to as the 'Postglacial' and (in Britain) as the 'Flandrian'.

Iron Age	600 BC – AD 43
Later medieval	AD 1066 – 1500
Last Glacial Maximum	Characterised by the expansion of the last ice sheet to affect the British Isles (around 18,000 years ago), which at its maximum extent covered over two-thirds of the present land area of the country.
Locally listed building	A structure of local architectural and/or historical interest. These are structures that are not included in the Secretary of State's Listing but are considered by the local authority to have architectural and/or historical merit
Listed building	A structure of architectural and/or historical interest. These are included on the Secretary of State's list, which affords statutory protection. These are subdivided into Grades I, II* and II (in descending importance).
Made Ground	Artificial deposit. An archaeologist would differentiate between modern made ground, containing identifiably modern inclusion such as concrete (but not brick or tile), and undated made ground, which may potentially contain deposits of archaeological interest.
Mesolithic	12,000 – 4,000 BC
National Monuments Record (NMR)	National database of archaeological sites, finds and events as maintained by English Heritage in Swindon. Generally not as comprehensive as the country SMR/HER.
Neolithic	4,000 – 2,000 BC
Ordnance Datum (OD)	A vertical datum used by Ordnance Survey as the basis for deriving altitudes on maps.
Palaeo-environmental	Related to past environments, i.e. during the prehistoric and later periods. Such remains can be of archaeological interest, and often consist of organic remains such as pollen and plant macro fossils which can be used to reconstruct the past environment.
Palaeolithic	700,000–12,000 BC
Palaeochannel	A former/ancient watercourse
Peat	A build-up of organic material in waterlogged areas, producing marshes, fens, mires, blanket and raised bogs. Accumulation is due to inhibited decay in anaerobic conditions.
Pleistocene	Geological period pre-dating the Holocene.
Post-medieval	AD 1500 – present
Preservation by record	Archaeological mitigation strategy where archaeological remains are fully excavated and recorded archaeologically and the results published. For remains of lesser significance, preservation by record might comprise an archaeological watching brief.
Preservation in situ	Archaeological mitigation strategy where nationally important (whether Scheduled or not) archaeological remains are preserved *in situ* for future generations, typically through modifications to design proposals to avoid damage or destruction of such remains.
Registered Historic Parks and Gardens	A site may lie within or contain a registered historic park or garden. The register of these in England is compiled and maintained by English Heritage.
Residual	When used to describe archaeological artefacts, this means not *in situ,* ie Found outside the context in which it was originally deposited.
Roman	AD 43 – 410
Scheduled Monument	An ancient monument or archaeological deposits designated by the Secretary of State as a 'Scheduled Ancient Monument' and protected under the Ancient Monuments Act.
Site	The area of proposed development
Site codes	Unique identifying codes allocated to archaeological fieldwork sites, e.g. evaluation, excavation, or watching brief sites.
Study area	Defined area surrounding the proposed development in which archaeological data is collected and analysed in order to set the site into its archaeological and historical context.
Solifluction, Soliflucted	Creeping of soil down a slope during periods of freeze and thaw in periglacial environments. Such material can seal and protect earlier landsurfaces and archaeological deposits which might otherwise not survive later erosion.
Stratigraphy	A term used to define a sequence of visually distinct horizontal layers (strata), one above another, which form the material remains of past cultures.
Truncate	Partially or wholly remove. In archaeological terms remains may have been truncated by previous construction activity.
Watching brief (archaeological)	An archaeological watching brief is '*a formal programme of observation and investigation conducted during any operation carried out for non–archaeological reasons.*'

10 Bibliography

DCLG [Department of Communities and Local Government], March 2012 *National Planning Policy Framework.*

DCLG [Department of Communities and Local Government], EH [English Heritage] & DCMS [Department for Culture, Media and Sport], March 2010 *PPS5 Planning for the Historic Environment: Historic Environment Planning Practice Guide.*

EH [English Heritage], 2008 *Conservation principles, policies and guidance* (Swindon: English Heritage)

EH [English Heritage], 2011, *The setting of heritage assets*.

IfA [Institute for Archaeologists] Nov 2012, *By-laws, standards and policy statements of the Institute for Archaeologists, standard and guidance: historic environment desk-based assessments*, rev, Reading

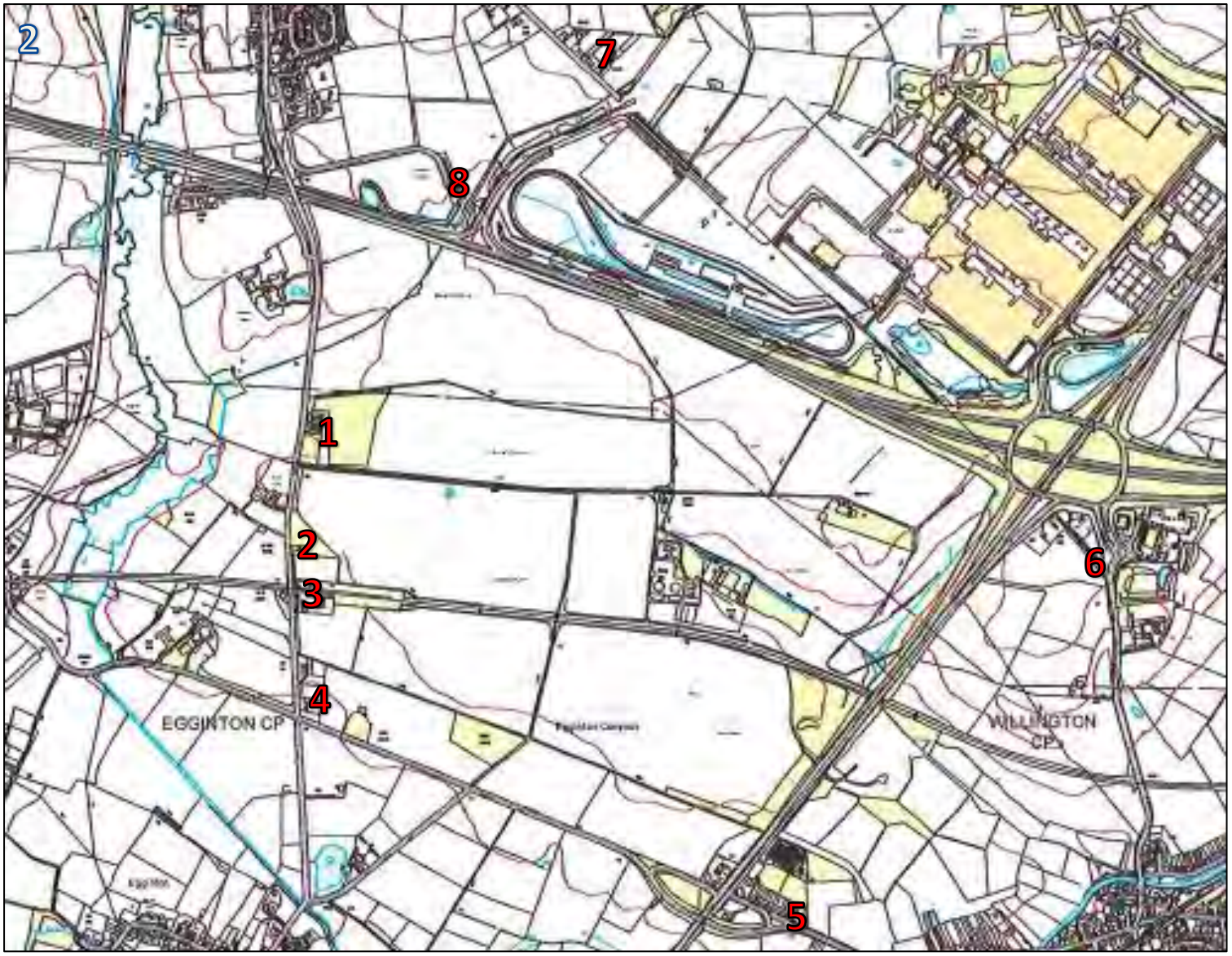
IfA [Institute for Archaeologists] Oct 2012, *Standards and guidance for archaeological advice*, Reading.

EH [English Heritage], National Heritage List for England

Ordnance Survey maps dated 1887/1888, 1901, 1924, 1955, 1973/76, 1993 & 2013

AJA Architects drawings(DRAFT)

APPENDIX 14: NOISE MONITORING LOCATIONS



Monitoring Locations

1. 1-8 Gravel Pit Cottages
2. Old Station Cottage
3. Railway Cottages
4. Park Vie
5. 230 Castle Way, Willington
6. Danes Lodge
7. Westmead Kennels
8. Broomhill Cottages
9. Findern Lane (not shown)
10. Marsdons Old Lane (not shown)

APPENDIX 15: NOISE CONSULTATION DOCUMENTS

SHARPS REDMORE
ACOUSTIC CONSULTANTS

Mr M Holford
Environmental Health Manager
South Derbyshire District Council
Civic Offices
Civic Way
Swandicote
Derbyshire
DE11 0AH

10th March 2014

By email and post: Matthew.Holford@south-derbys.gov.uk
Reference: East Midlands Intermodal Park
Project No: 1313755

Dear Mr Holford

Sharps Redmore have been appointed by Goodman and Shepherd to input into the Environmental Statement for the proposed new Strategic Rail Freight Interchange incorporating approximately five million sq. ft. of manufacturing and distribution space in Etwall, Derbyshire. Our role will be to assess the environmental noise and vibration impact of the proposal.

Following our meeting on 10th February 2014, I confirm the following matters were discussed:

Collection of baseline data

An important aspect of the environmental noise impact assessment is to collate baseline noise levels so that any changes to the noise environment can be assessed against the existing noise climate. Further to our meeting on the 10th February I have chosen a number of locations in the surrounding area, from where I intend to undertake baseline noise surveys. These locations are shown on the attached plan and illustrated in the attached figures.

To enable sufficient data to be collected I would suggest that we carry out the monitoring within the gardens of the properties identified. Monitoring would be carried out by setting up sound level meters in the gardens which will automatically measure, the steady $L_{AeqT,}$ background $L_{A90,T}$ and non-steady L_{Amax} during the measurement period. I would suggest carrying out the surveys over at least 7 days, to establish any variation in noise levels over week days and weekends. This survey would be carried out over the next two months and will be supplemented by manned surveys to check the unattended survey results and to identify any existing noise sources. Specifically the measurement locations to represent the nearest noise sensitive properties are as follows:

- 1-8 Gravel Pit Cottages, Egginton Road (1)
- Gorse Farm, Egginton Road (2)
- Old Station Cottage, Egginton Road (3)
- Railway Cottage/Park Hill Cottages, Etwall Road (4)
- Park View, Etwall Road (5)
- 230 – 228 The Castle Way, Willingdon (6)
- Danes Lodge (7)
- Westmead Cattery, Willingdon Road, Etwall (8)
- Broomhill Cottages, Jacksons Lane, Etwall (9)
- Blakely Lodge, Egginton Road, Etwall (10)
- 119 – 131 Findern Lane, Willingdon (11)
- Station Farm/Hilton Crossing House, Hilton Road, Eggington (12)

Properties 1 – 10 are in the main, isolated properties on or close to the perimeter on the site. Properties 11 and 12 are included as they are close to the existing rail line which passes the site.

In addition to the above I would suggest that additional monitoring is carried out at properties representative of the main village areas of Etwall, Hilton, Egginton and Willington.

As stated above to enable a detailed and accurate representation of the existing noise climate, ideally monitoring will be carried out in the gardens of the properties identified above. To facilitate this, as discussed, I have drafted a joint letter from South Derbyshire District Council/Sharps Redmore (on behalf of East Midland Intermodal Park) which could be sent to residents identified above. I would be pleased to receive any comments you may have on the draft letter and choice of measurement locations.

Environmental Statement

The scope of the environmental statement is still to be to determined however, as discussed, based on a preliminary assessment it is proposed that in terms of noise and vibration assessment will cover the following areas:

- Noise from construction works
- Noise and vibration from increased rail activity
- Noise and vibration from increased road activity

- On-site noise, including vehicle movements on site, loading and unloading of containers, rail movements on site.

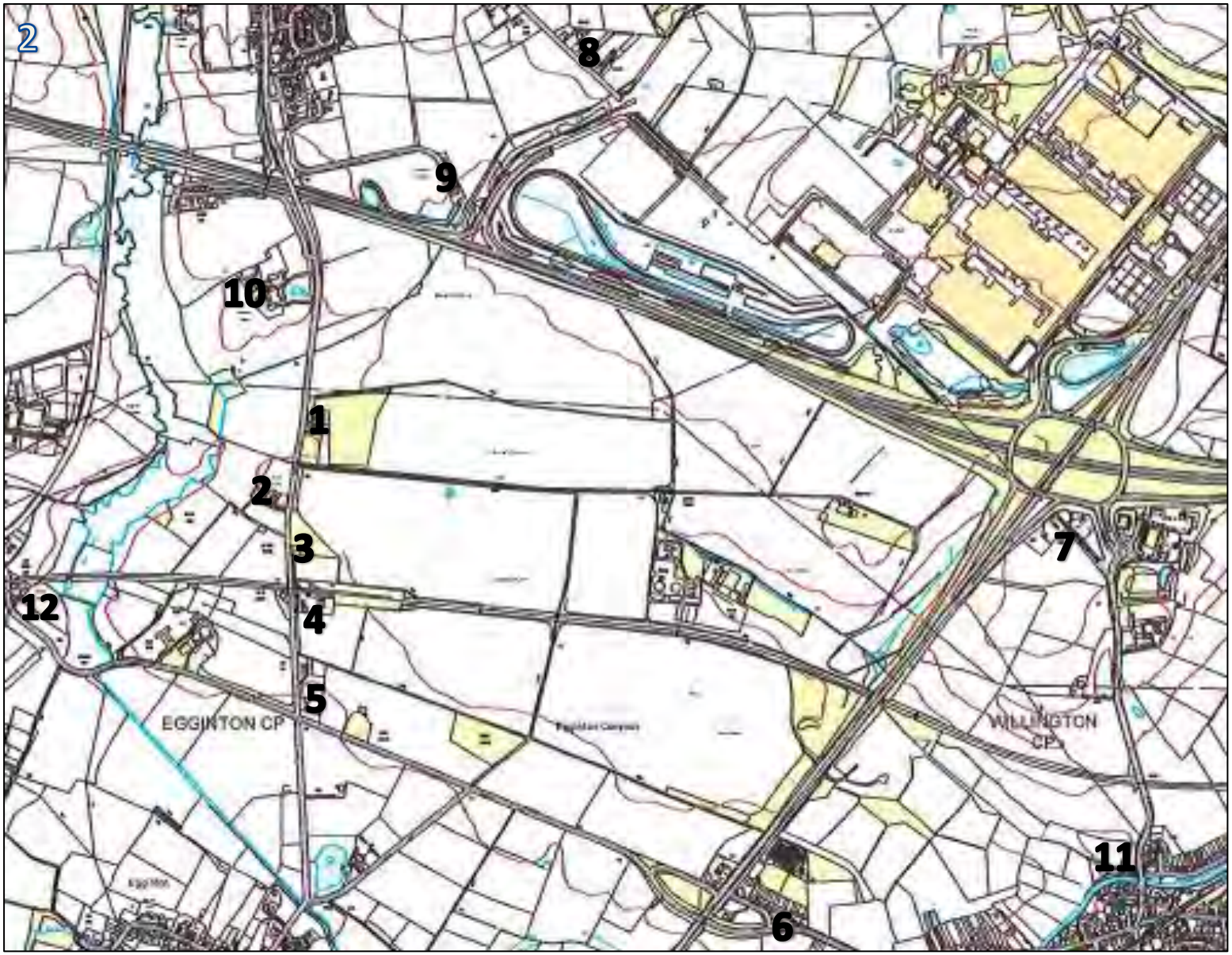
I hope the above information is useful. If you have any questions in relation to the above please do not hesitate to contact. It would be particularly useful if you could advise on any local policy guidance issues or areas of concern that you may have.

Yours sincerely

Gary King MIOA
gary.king@sharpsredmore.co.uk

Enc. 1. Plan of suggested monitoring locations
2. Draft letter to be sent to local residents

c.c. Tim Denning, Planning Officer, South Derbyshire Council



Monitoring Locations

1. 1-8 Gravel Pit Cottages
2. Gorse Farm
3. Old Station Cottage
4. Railway Cottage/Park Hill Cottages
5. Park View/Greenacres
6. 230 – 228 The Castle Way
7. Danes Lodge
8. Westmead Cattery
9. Broomhill Cottages
10. Blakely Lodge
11. 119 – 131 Findern Lane
12. Station Farm/Hilton Crossing Hoise

Owner/Occupier

Address line 2
Address line 3
Address line 4
Address line 5
Address line 6

Day Month Year

Reference: Baseline noise survey – East Midland Intermodal Park

Dear Local Resident

As your local District Council we have been asked by a potential developer in your area to contact you as this was felt a better approach that receiving a letter from an unknown company out of the blue.

You will probably be aware that Goodman and Shepherd are exploring the opportunities of developing a Strategic Railfreight Terminal (to be called East Midlands Intermodal Park) on land adjacent to the A50 and A38, sometimes referred to as Egginton Common. An important part of this process is the production of an Environmental Impact Assessment and a key element of this is an understanding of noise, existing and proposed, and its impact on local residents and communities. Sharps Redmore, a leading noise and acoustic specialist with many years' experience and have been appointed by Goodman Shepherd to undertake the required noise surveys.

Following discussions that Sharps Redmore have had with us in the Environmental Health team of South Derbyshire District Council it has been identified that it would be helpful if they could measure existing levels of noise at your property. In order to accurately monitor and record noise levels they would need to install a sound level meter in your garden for approximately seven days. A photograph of sound level meter with a typical set up is shown in the photograph below. The meter runs off its own power supply and does not, itself, generate any noise or nuisance. There meter will in no way damage your garden.

In order to ensure that they can assess their proposal information from your property would be invaluable and would help ensure that there is no negative impact on local residents and villages. If you are agreeable to a meter being temporarily installed in your garden, please contact Gary King at Sharps Redmore directly on 01473 730073 or gary.king@sharpsredmore.co.uk.

I do hope that you will be able to agree to this request. In closing, I should add that this letter and your agreeing to take part in no way comprises your's or the Council's response to any subsequent planning proposal. If you wish to discuss this letter with someone from the Council please contact me on [insert South Derbyshire Council contact].

Thank you for your help and assistance with this matter.

Yours faithfully

Gary King

From: Holford Matthew <Matthew.Holford@south-derbys.gov.uk>
Sent: 18 March 2014 12:48
To: Gary King
Cc: Mills John; Tim.Denning@south-derbys.gov.uk
Subject: RE: East Midlands Intermodal Park - Baseline survey

Hi Gary

I've had a chat with our planners about the proposed baseline survey and the proposed scope of the ES.

In terms of the scope, I can confirm we're happy with the broad headings you've provided. As you suggested, the full scope is yet to be determined so I'm sure we'll share further information about this. The only other issue I can think of at the moment are the potential ecological effects. The nearest ecological receptors that I can see are likely to be at Hilton Gravel Pits which are about 1km to the north west. According to the SSSI designation there are over-wintering birds here. I'm not sure if a full assessment of the impact will be necessary particularly given the likely high background noise levels due to the proximity of the A50, but you'll probably at least need to scope them out.

In terms of the proposed baseline monitoring locations they are all as agreed although it may be worth adding a couple of additional sites further along the railway line to both the east and west. I'm not sure exactly how much rail traffic is anticipated, but I understand that it could be significant in both directions so baseline levels to assist with the model predictions at existing residential properties close to the line at Willington and Hatton may be valuable. I'm not sure how likely the proposal is to meet the Noise Insulation Regs criteria, but these surveys will also help clarify this.

Proposed appropriate locations are;

135 Findern Lane, Willington OS ref 429970:328960, and,
31 Marsdon Old Lane, Hatton OS ref 421610:329630

I can't imagine that the existing baseline is much different for all of the proposed locations 1,2,3,4,and 5 so if you wanted to sacrifice a couple of these for the two proposed locations I'd be comfortable because you should have enough data from 3 locations to verify the model.

Having taken advice internally, we've reached the view that SDDC is unwilling to send out introductory letters prior to the baseline survey. The authority is keen to take a neutral stance in respect to the application prior to the facts of the application being presented to our Members and sending out a letter, even framed in very non-committal terms is considered likely to compromise that position.

Regards

Matt Holford
Environmental Health Manager
South Derbyshire District Council
Direct Dial 01283 595856

From: Gary King [mailto:gary.king@sharpsredmore.co.uk]
Sent: 10 March 2014 15:38
To: Holford Matthew; Tim.Denning@south-derbys.gov.uk
Subject: East Midlands Intermodal Park - Baseline survey

Matt,

As discussed please find attached letter confirming our discussion regarding the above project. I have also attached some draft wording, which if satisfactory, could be sent to local residents regarding the baseline survey.

Regards

Gary

Gary King
Acoustic Consultant

SHARPS REDMORE
ACOUSTIC CONSULTANTS
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APPENDIX 16: BREEDING BIRD SURVEY RESULTS

Land at Etwall, Derbyshire

Ref 5433

Breeding Bird Survey

Ecology Surveys

August 2013

Contents

1 Introduction and Methodology

1.1 Ecology Surveys was commissioned by Ecology Solutions Ltd. in June 2013 to undertake a late season breeding bird survey of a large area of farmland situated between the villages of Etwall, Egginton and Willington in Derbyshire. The survey area is surrounded by roads on all four sides: the A50 and A38 trunk roads on the north and east sides respectively, the A5132 (Carriers Road) along the southern boundary and the minor Egginton Road/Etwall Road along the western boundary.

1.2 The survey site consists of approximately 2.5 square kilometres of open farmland, comprising numerous relatively large arable fields separated by a rather sparse network of hedgerows and trees, a railway line and a road/tracks. Also within the site are several (largely peripheral) patches of woodland, small areas of rough grassland/scrub, a small industrial development, and two residential dwellings with gardens.

1.3 Two early morning surveys were conducted in early July 2013 in order to assess breeding bird activity within the site. The weather conditions during these surveys are given in table 1.

Date (2013)	Time	Weather summary
6th July	04:25 – 08:25	1/8 cloud, still, warm (15°C).
14th July	04:20 – 08:20	7/8 cloud, still, warm (16°C).

Table 1: Weather conditions during the breeding bird surveys.

1.4 On each survey an experienced ornithologist walked a circuitous route around the site, covering all field margins, recording the locations, numbers and activity of all bird species present within (and around) the area.

1.5 Due to the lateness of this survey – occurring in the later stages of the breeding season – it is not necessarily possible to be as certain about the breeding status of some species within the site, since some species will have finished holding territory or nesting, with fledged juveniles on the move. Some species may potentially have left the site already, whilst others may be visiting the site from elsewhere. Nevertheless, it is likely that the majority of species that use the site would have been recorded, although certain species that may be using the area as part of a larger territory, for example nocturnal species such as owls, may be missed (especially at a site of this size).

1.6 To ascertain the breeding status of birds using the site, the following criteria were applied following the methodology used in the 'Atlas' surveys of 1988-1991 (Gibbons et al, 1993). This accepts the following activities as denoting breeding (including those probably breeding although definite proof was lacking):

- Bird apparently holding territory.
- Courtship and display.
- Nest-building (including excavating nest-hole).
- Distraction display or feigning injury.
- Adult carrying faecal sac or food.
- Adult entering or leaving apparently occupied nest site.
- Nest with eggs or eggshells found, or bird sitting but not disturbed.
- Nest with young; or downy young of ducks, game-birds, waders and other nidifugous species.
- Recently fledged young.

2 Results

2.1 A total of 41 species of birds was recorded during the breeding bird survey, of which 23 were breeding or probably breeding within the site, and ten were possibly breeding (i.e. habitat suitable to support the species is present). The remaining eight species were only recorded flying over the site.

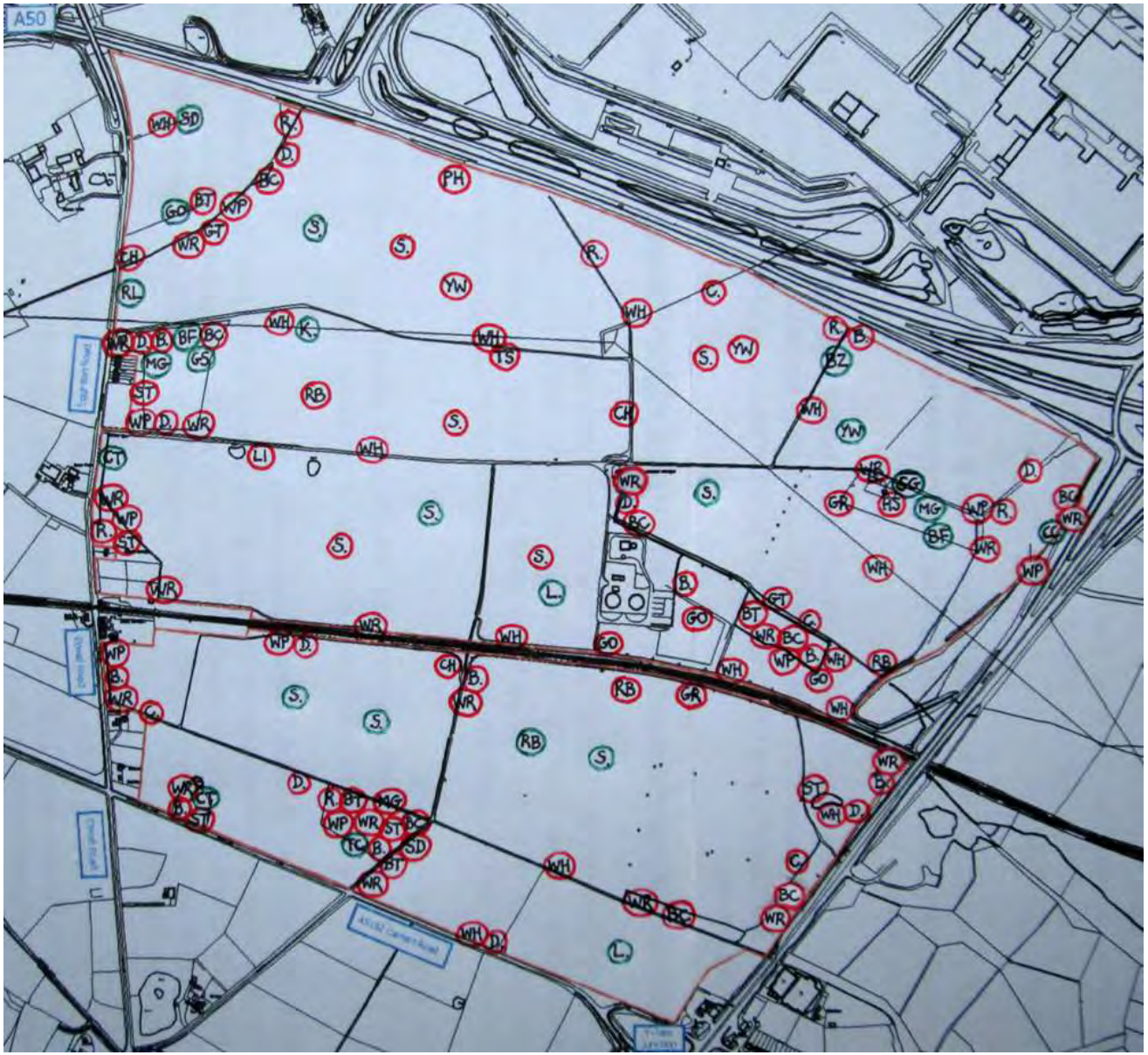
2.2 A summary of observations for each species is included in table 2, whilst the distribution of breeding birds is shown in plan 1.

Systematic list

Species (and BTO species code)	RSPB listed	Est. no. pairs	Notes
Pheasant(PH) *Phasianus colchicus*		1	
Red-legged partridge (RL) *Alectoris rufa*		0-1	
Grey heron (H.) *Ardea cinerea*		0	Two flew over on the first visit.
Buzzard (BZ) *Buteo buteo*		0-1	Three or four birds present in and around the area on both visits.
Hobby (HY) *Falco subbuteo*	(Sch.1)	0	One present on the first visit was most likely a dispersing individual, although breeding at the site cannot be ruled out.
Kestrel (K.) *Falco tinnunculus*	Amber	0-1	
Oystercatcher (OC) *Haematopus ostralegus*	Amber	0	Recorded flying over on both visits, presumably from gravel pits at the Toyota factory on the north side of the A50.
Lapwing (L.) *Vanellus vanellus*	Red	0-2	Pairs present the relatively small central and south-easternmost fields.
Herring gull (HG) *Larus argentatus*	Red	0	Three or four flew over on both visits.
Woodpigeon (WP) *Columba palumbus*		9	
Stock dove (SD) *Columba oenas*	Amber	1-2	
Kingfisher (KF) *Alcedo atthis*	Amber	0	One flew through the site (rather bizarrely as there are no watercourses to speak of) on the second visit.
Swift (SI) *Apus apus*	Amber	0	Up to four flying over the area.
Great spotted woodpecker (GS) *Dendrocopos major*		0-1	
Skylark (S.) *Alauda arvensis*	Red	5-11	Mostly to the north of the railway line.
Swallow (SL) *Hirundo rustica*	Amber	0	One feeding in the extreme southwest of the site on both visits, presumably nesting off-site.
Yellow wagtail (YW) *Motacilla flava*	Red	2-3	In the northern fields.
Wren (WR) *Troglodytes troglodytes*		19	Abundant in vegetation throughout.
Dunnock (D.) *Prunella modularis*	Amber	9	
Robin (R.) *Erithacus rubecula*		6	

Species (and BTO species code)	RSPB listed	Est. no. pairs	Notes
Blackbird (B.) *Turdus merula*		9	
Song thrush (ST) *Turdus philomelos*	Red	5	All in peripheral woodland/garden habitats.
Blackcap (BC) *Sylvia atricapilla*		8	
Whitethroat (WH) *Sylvia communis*	Amber	14	Common in scrub throughout.
Chiffchaff (CC) *Phylloscopus collybita*		0-1	
Blue tit (BT) *Cyanistes caeruleus*		4	
Great tit (GT) *Parus major*		2	
Coal tit (CT) *Periparus ater*		0-2	Associated with peripheral conifers in the east/southeast.
Treecreeper (TC) *Certhia familiaris*		0-1	
Magpie (MG) *Pica pica*		1-3	
Jackdaw (JD) *Corvus monedula*		0	Only recorded flying over.
Carrion crow (C.) *Corvus corone*		4	
Starling (SG) *Sturnus vulgaris*	Red	0-1	At one of the houses.
House sparrow (HS) *Passer domesticus*	Red	1	At one of the houses.
Tree sparrow (TS) *Passer montanus*	Red	1	Associated with scattered trees in the north of the site.
Chaffinch (CH) *Fringilla coelebs*		3	
Greenfinch (GR) *Carduelis chloris*		2	
Goldfinch (GO) *Carduelis carduelis*		3-4	Especially around the industrial area.
Linnet (LI) *Carduelis cannabina*	Red	1	
Bullfinch (BF) *Pyrrhula pyrrhula*	Amber	0-2	In garden/scrub areas in the east and west of the site.
Reed bunting (RB) *Emberiza schoeniclus*	Amber	3-4	In areas of scattered scrub.

Table 2: Bird species recorded during the breeding bird surveys at Etwall. The most significant species are shown in bold.



Plan 1: Distribution of breeding birds at Etwall.
Red circles indicate species breeding or probably breeding; green circles those possibly breeding. Species locations do not necessarily show nest-sites, but show the location of each species within its presumed territory. For the key to species, see the systematic list.

3 Summary and Conclusions

3.1 The Etwall site supports a relatively diverse breeding bird assemblage, which includes a good range of declining farmland species.

3.2 The most significant species present at the site is tree sparrow, with a single pair present in the centre-north of the site. Tree sparrow is a farmland species that is included on the RSPB Red List as it has declined by 93% since 1970 (per RSPB), although the Etwall area is known to support an important population (per Derbyshire Wildlife Trust).

3.3 Other declining farmland species breeding or possibly breeding at the site include lapwing, skylark and yellow wagtail. These species are included on the RSPB Red List having undergone a major decline in their UK populations over 25 years (although not as severe a decline as tree sparrow). The Amber Listed whitethroat, linnet and reed bunting are also breeding in hedgerows/ scrub in the open farmland at the site, these species having undergone moderate declines in their UK populations. Nevertheless all these species remain common and widespread in both a local and national context.

3.4 Further Red or Amber List species breeding at the site include stock dove, dunnock, song thrush, house sparrow, and possibly kestrel, starling and bullfinch. All these species are associated either with the largely peripheral areas of woodland/scrub or with the onsite buildings/gardens. They all remain common and widespread species in both a local and national context.

3.5 In addition it cannot be ruled out that hobby could breed at the site, in one of the woodland areas. As a rare breeding species, hobby is protected under Schedule 1 of the 1981 Wildlife and Countryside Act.

APPENDIX 17: BAT REPORT

ecology solutions

GOODMAN SHEPHERD

EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

Bat Survey Report

ecology solutions for planners and developers

October 2013
5433.BatRep.vf

CONTENTS

PLANS

1. INTRODUCTION

1.1. Background

1.1.1. Ecology Solutions was commissioned by Goodman Shepherd in July 2013 to undertake surveys for bats at the site at Etwall, South Derbyshire (see Plan ECO1).

1.2. Site Characteristics

1.2.1. The site is located to the southeast of the village of Etwall and approximately 4km southeast of Derby. It is situated in a largely agricultural environment; however, industrial buildings are present to the north, beyond the A50 trunk road which borders the site's northern boundary. The A38 Burton Road is to the east of the site; Egginton Road / Etwall Road is to the west; Carriers Road is to the south. The railway line between Derby and Uttoxeter passes through the site from east to west. A short row of terraced houses is situated to the immediate west of the site on Egginton Road.

1.2.2. The site predominantly comprises large arable fields separated by hedgerows with standard trees. A few small copses are present, in addition to a number of waterbodies. Boundary Road leads eastwards into the site from the junction with Eggington Road, from which there is access to the existing agricultural buildings, to two occupied and one unoccupied residential properties, and to the commercial premises of the Etwall Cake Plant and the Biffa Recycling Facility.

1.3. Purpose of the Report

1.3.1. The purpose of this report is to detail the methodology of the bat survey work at the site and to document the findings.

2. SURVEY METHODOLOGY

2.1. Survey work was undertaken with due regard to guidance issued in Natural England's Mitigation Guidelines[1], with regard also had to JNCC's Bat Workers' Manual[2] and the Bat Conservation Trust's Good Practice Guidelines[3].

2.2. Desk Study

2.2.1. In order to compile background information on the site and the wider area, Ecology Solutions contacted the Derbyshire Wildlife Trust and Derbyshire Bat Conservation Group. Relevant records received are considered within this report.

2.3. Internal/External Survey

2.3.1. Where possible all buildings within the site underwent an internal and external examination to look for the evidence or potential for roosting bats.

2.3.1. 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/or
- is in a rural setting and close to woodland or water.

2.3.2. Conversely, the probability decreases if a building is of a modern or pre-fabricated 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.

2.3.3. The main requirements for a winter/hibernation roost site are that it maintains a stable (cool) temperature and humidity. Sites commonly utilised by bats as winter roosts include cavities/holes in trees, 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.

2.3.4. Specific searches were made for bat droppings that can indicate present or past use and extent of use, as well as other signs to indicate the possible presence of bats e.g. feeding remains, presence of stained areas, or areas that are cobweb-free.

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[1] Mitchell-Jones, A. J. (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.
[2] Mitchell-Jones, A.J. & McLeish, A.P. (Eds.) (2004). *Bat Workers' Manual*. 3rd edition. Joint Nature Conservation Committee, Peterborough.
[3] Hundt, L (2012). *Bat Surveys – Good Practice Guidelines*. 2nd Edition. Bat Conservation Trust, London.

2.4. Emergence and Re-entry Survey

2.4.1. On 29 July 2013 dusk/night time emergence survey work was undertaken on B1. On the 13 August 2013 dusk/night time emergence survey work was undertaken on B2. This survey method aimed to identify any roosting bats leaving the buildings in the evening.

2.4.2. Surveyors were positioned so as to observe all aspects of the buildings during suitable weather conditions. Emergence surveys were conducted from half an hour before sunset, until two hours after sunset.

2.4.3. On 5 September 2013 dawn re-entry survey work was also undertaken for B1 and B2. This survey method aimed to identify any bats returning to the roost in the early morning. Surveyors were positioned so as to observe all aspects of the buildings during suitable weather conditions. Dawn surveys were conducted from two hours before sunrise until half an hour after sunrise.

2.5. Activity Surveys

2.5.1. Activity surveys of the site were carried out on 29 July and 4 September 2013. The surveys aim to record the level of activity across the site in terms of foraging and commuting. Pre-determined transect routes are walked following hedge lines, woodland edge and other features that are likely to be used by foraging and commuting bats and the activity recorded.

2.5.2. The site was divided in to four sections and a surveyor walked a transect route through those sections on each of the survey nights (see Plans ECO2 and ECO3).

2.5.3. The surveys were undertaken using Anabat and EM3 detectors which recorded the activity encountered during the transects and allowed the data to be subsequently analysed using Analook software.

3. SURVEY RESULTS

3.1. Desk Study

3.1.1. Information received from the Derbyshire Wildlife Trust and Derbyshire Bat Conservation Trust returned no records for any bats form within the site. The closest record for a bat roost returned was for a Brown Long Eared *Plecotus auritus* roost recorded approximately 0.2km to the north of the site in 2004.

3.2. Internal / External Survey

3.2.1. The site contains has a number of built structures. These are labelled on Plan ECO2 as Buildings B1 to B8 and are described individually below.

3.2.2. Building B1 is a semi detached cottage with only the east side being currently occupied and the western section boarded up. It is a two storey brick built structure with a pitched clay tiled roof. There are gaps within the tiles and around the eaves that may offer potential access points for bats. No internal surveys of the building could be undertaken at the time of survey owing to access restrictions. No evidence of bats was observed from an external assessment undertaken at distance.

3.2.3. Building B2 is a large detached house. It is a two storey brick built dwelling with a pitched clay tiled roof. It is a T-shaped building with a smaller lean to section within the western side corner. The tiles are in relatively good condition with few gaps although some are present. There are potential access points around the eaves and around chimneys and areas of lead flashing. No internal surveys of the building were undertaken due to access restrictions. No evidence of bats was observed from an external assessment undertaken at distance.

3.2.4. Building B3 is a large shed building located at the Biffa composting facility. The northern end is a large storage barn with steel girder construction with metal sheet cladding. It is open to the roof with Perspex roof lights installed within the roof. To the southern end is a concrete walled section which houses the heating chambers and is a flat roofed area. No cavities or areas which would be suitable for roosting bats were apparent during the survey, and the area is subject to high levels of disturbance. Two Portakabin-style structures are present within the Biffa site and are in use as offices. These also have no potential for roosting bats.

3.2.5. Building B4 is located within the Severn Trent Water Cake Plant. It is a large shed building with a brick base and metal sheet cladding and roof. It also contains Perspex roof lights within the ceiling. The cladding is attached over a steel girder frame. There are no obvious cavities within the building and no evidence of bats was recorded.

3.2.6. Buildings B5 and B6 are also located within the Cake Plant. They are smaller storage sheds with a brick base and metal sheet

cladding over a steel girder frame. They also contain roof lights with no obvious voids or cavities. No evidence of bats was recorded and these buildings are considered to have no potential to support roosting bats.

3.2.7. Building B7 is a former pump house, a small octagonal brick built structure located to the west of Building B1. It has a flat roof and has no obvious access points into it. It is located within an area of dense scrub. No internal inspection was possible, but no evidence of bats was recorded from an external assessment.

3.2.8. Building B8 is a pillbox located in the northeast of the site. It consists of a small concrete lined chamber with a central pillar and concrete roof covered with earth. It was fairly light and draughty at the time of survey from the large observation ports between the roof and the wall. No cracks or crevices for bats to crawl into are present and no evidence of droppings or use of bats was observed.

3.2.9. Buildings B1 and B2 have the potential to support roosting bats and given that no internal surveys were possible further survey work was required in the form of emergence and re-entry surveys.

3.2.10. The other buildings given their construction and use were deemed unsuitable to support roosting bats.

3.3. Dusk / Evening Emergence Surveys

3.3.1. The results of the bat emergence survey undertaken on 29 July 2013 identified no bats emerging from Building B1. The first bat recorded foraging in the proximity of the house during the emergence survey was a Common Pipistrelle *Pipistrellus pipistrellus* at 22:06pm, which is an hour after sunset. Common Pipistrelle bats are known to emerge shortly after sunset and therefore it is not thought that the roost is located in the immediate vicinity of B1.

3.3.2. The bat emergence surveys undertaken on 13 August 2013 identified no bats emerging from Building B2. The first bat record was a Common Pipistrelle at 21:08pm and again this is approximately 40 minutes after sunset and indicates that the bat is not likely to have emerged from the immediate area.

3.3.3. All emergence surveys were completed during suitable weather conditions in line with survey guidelines. Conditions at the time of the surveys are detailed in Table 3.1 below.

Date	Temperature (˚C)	Weather Conditions
29.07.13	14	Clear - light wind
13.08.13	15	10% cloud - light wind

Table 3.1. Emergence survey weather conditions.

3.4. **Dawn Re-entry Survey**

3.4.1. The re-entry survey undertaken on 5 September 2013 did not record any bats re-entering Building B1.

3.4.2. During the survey of B2 surveyors observed a single Common Pipistrelle circling the roof for approximately seven minutes. It was seen to land on the building, and though it could not be said conclusively that it re-entered, on balance it is thought to have entered beneath an area of lead flashing on the lean-to section on the west side of the building. The bat was last seen at 05:41 which was approximately 40 minutes before sunrise.

3.4.3. Prevailing weather conditions at the time of the survey are shown in Table 3.2 below.

Date	Temperature (˚C)	Weather Conditions
5.09.12	11	Clear - light wind

Table 3.2. Re-entry survey weather conditions.

3.5. **Activity Surveys**

3.5.1. Activity surveys were carried out on 29 July 2013 and 4 September 2013. Prevailing weather conditions at the time of the survey are shown in Table 3.3 below.

Date	Temperature (˚C)	Weather Conditions
29.07.13	14	Clear - light wind
04.09.13	21	40% cloud - light wind

Table 3.3. Activity survey weather conditions.

3.5.1. Bat activity was recorded along the majority of hedgerows during both activity surveys. The majority of activity recorded was attributed to Common Pipistrelle. Other species recorded on site were Soprano Pipistrelle *Pipistrellus pygmaeus*, Noctule *Nyctalus noctula* and *Myotis* species. The distribution of the bats during the survey is shown on Plans ECO2 and ECO3.

4. DISCUSSION

4.1. 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 2010 ("the Habitats Regulations"). These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) bats;
- Deliberately to disturb bats in such a way as to significantly affect:-
  (i) be likely to impair their ability to survive, to breed or rear or nurture their young; or to hibernate or migrate; or
  (ii) to affect significantly the local distribution or abundance of the species to which they belong;
- To damage or destroy any breeding or resting place used by bats;
- Intentionally or recklessly to obstruct access to any place used by bats for shelter or protection (even if bats are not in residence).

4.2. The words deliberately and intentionally include actions where a court can infer that the defendant knew that the action taken would almost inevitably result in an offence, even if that was not the primary purpose of the act.

4.3. 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.

4.4. 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.

4.5. Licences can usually only be granted if the development is in receipt of full planning permission.

4.6. The majority of the buildings were not found to have evidence of roosting bats from the surveys undertaken, and it is considered that they could be demolished at any time without the need for any particular mitigation measures or a Natural England European Protected Species licence.

4.7. No internal access to Buildings B1 and B2 was possible. The design and construction of these buildings is such that they offer potential to support roosting bats, and it would appear that both buildings contain an internal loft void. It is recommended that an internal survey of each of these buildings be undertaken once access has been secured.

4.8. The dawn re-entry survey of Building B2 was inconclusive, but it would appear from the observations of surveyors that a single Common Pipistrelle returned to the building. Further evidence would be gathered during an internal and closer external survey (the current work was possible from distance only). However, on the basis of the current evidence it would appear that a small Common Pipistrelle roost is present. Such a roost would be subject to the full legislative protection set out above.

4.9. Common Pipistrelle is the UK's most common bat species. Natural England's *Bat Mitigation Guidelines* indicate that for individual bats of common species, the following mitigation standard is appropriate:

Flexibility over provision of bat boxes, access to new buildings, etc. No conditions about timing or monitoring.

4.10. It is expected that, along with the other buildings on site, Building B2 would be demolished in due course as part of the development of the site. Once recommended further work is complete an appropriate mitigation strategy would be devised as considered necessary. Depending on the outcome of this further survey work, it may be deemed that a Natural England European Protected Species licence is needed to facilitate the development.

4.11. The presence of a known Brown Long-eared bat roost a short distance to the north of the northwest corner of the site as confirmed by the desk study exercise is noted, although no records of this species were found during either of the walked transect surveys. The record is situated beyond the A38, which is a busy and brightly lit dual carriageway. It may be the case that bats from this roost choose to forage over land to the north of the road, where there are good opportunities, rather than cross the road to forage in the site.

4.12. A moderate level of bat activity was recorded during the activity transect work undertaken, with activity distributed generally evenly across the site. No features were considered to be of greater importance than others, though generally the network of hedgerows and trees within the site is considered to offer good foraging resources for this group. The development of the site would likely result in the removal of a significant number of internal hedgerows, and mitigation measures would need to be considered in light of such an impact. It would be recommended that wildlife corridors are maintained around and through the site wherever possible. Consideration would need to be given to the lighting scheme for the development in order to minimise adverse effects on bat species.

5. SUMMARY

5.1. Ecology Solutions was commissioned by Goodman Shepherd in July 2013 to undertake presence / absence surveys for reptiles at the site at Etwall, South Derbyshire (see Plan ECO1).

5.2. Surveys were undertaken with regard to accepted guidelines during July, August and September 2013. Internal and external surveys of the buildings present were undertaken where possible, complemented by evening emergence and dawn re-entry surveys of specifc buildings. Walked transects of the site were undertaken in July and September in order to assess the activity of bats within the site.

5.3. The majority of the buildings were not found to have evidence of roosting bats from the surveys undertaken, and it is considered that they could be demolished at any time without the need for any particular mitigation measures or a Natural England European Protected Species licence.

5.4. No internal access to Buildings B1 and B2 was possible. The design and construction of these buildings is such that they offer potential to support roosting bats, and it would appear that both buildings contain an internal loft void. It is recommended that an internal survey of each of these buildings be undertaken once access has been secured.

5.5. The dawn re-entry survey of Building B2 was inconclusive, but it would appear from the observations of surveyors that a single Common Pipistrelle returned to the building. Further evidence would be gathered during an internal and closer external survey (the current work was possible from distance only). However, on the basis of the current evidence it would appear that a small Common Pipistrelle roost is present. Such a roost would be subject to the full legislative protection of the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife & Countryside Act 1981 (as amended).

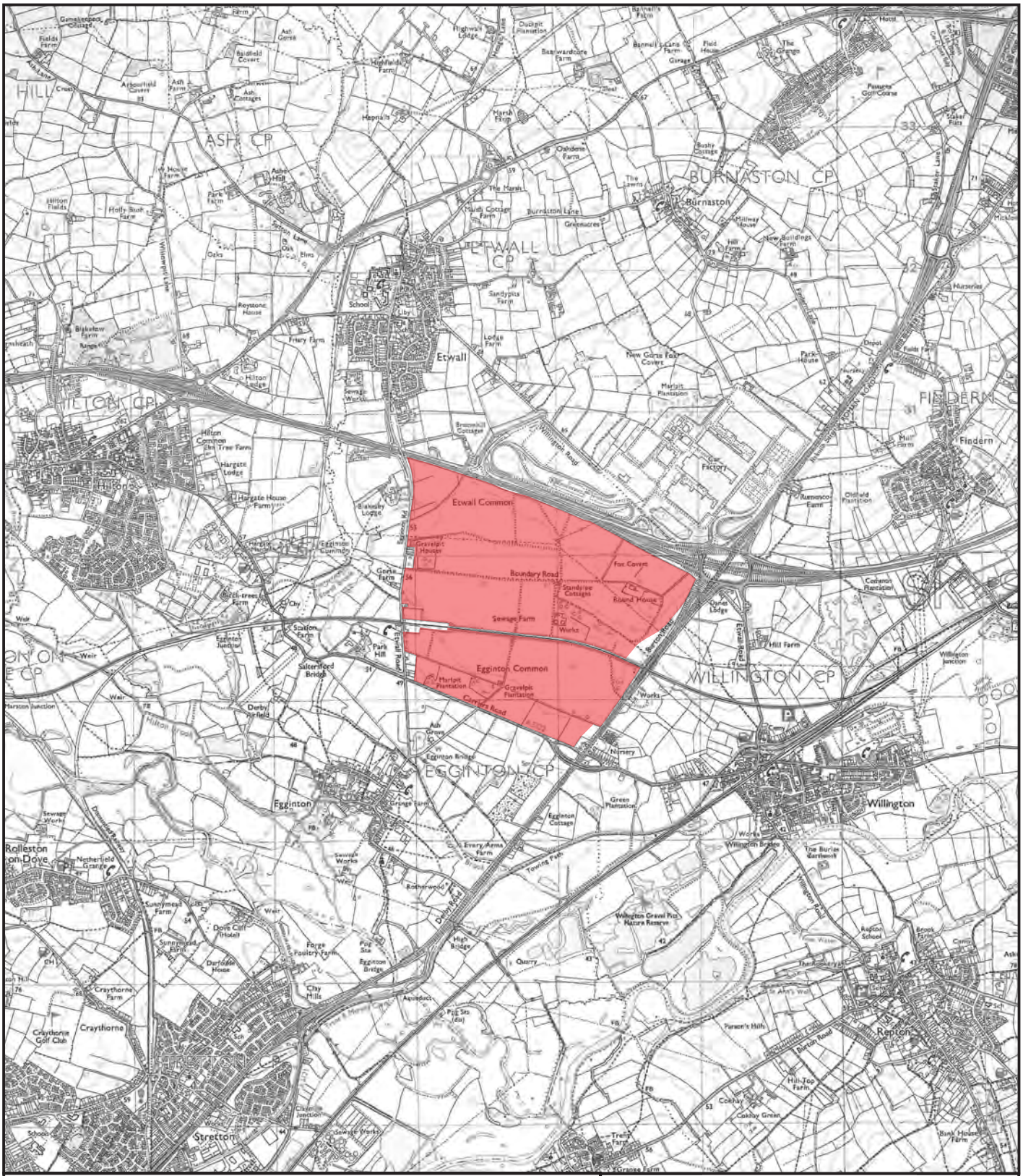
5.6. It is expected that, along with the other buildings on site, Building B2 would be demolished in due course as part of the development of the site. Once recommended further work is complete an appropriate mitigation strategy would be devised as considered necessary. Depending on the outcome of this further survey work, it may be deemed that a Natural England European Protected Species licence is needed to facilitate the development.

5.7. A moderate level of bat activity was recorded during the activity transect work undertaken, with activity distributed generally evenly across the site. No features were considered to be of greater importance than others, though generally the network of hedgerows and trees within the site is considered to offer good foraging resources for this group. The development of the site would likely result in the removal of a significant number of internal hedgerows, and mitigation measures would need to be considered in light of such an impact. It would be recommended that wildlife corridors are maintained around and through the site wherever possible. Consideration would need to be given to the lighting scheme for the development in order to minimise adverse effects on bat species.

PLANS

PLAN ECO1

Site Location



KEY:

SITE LOCATION

N

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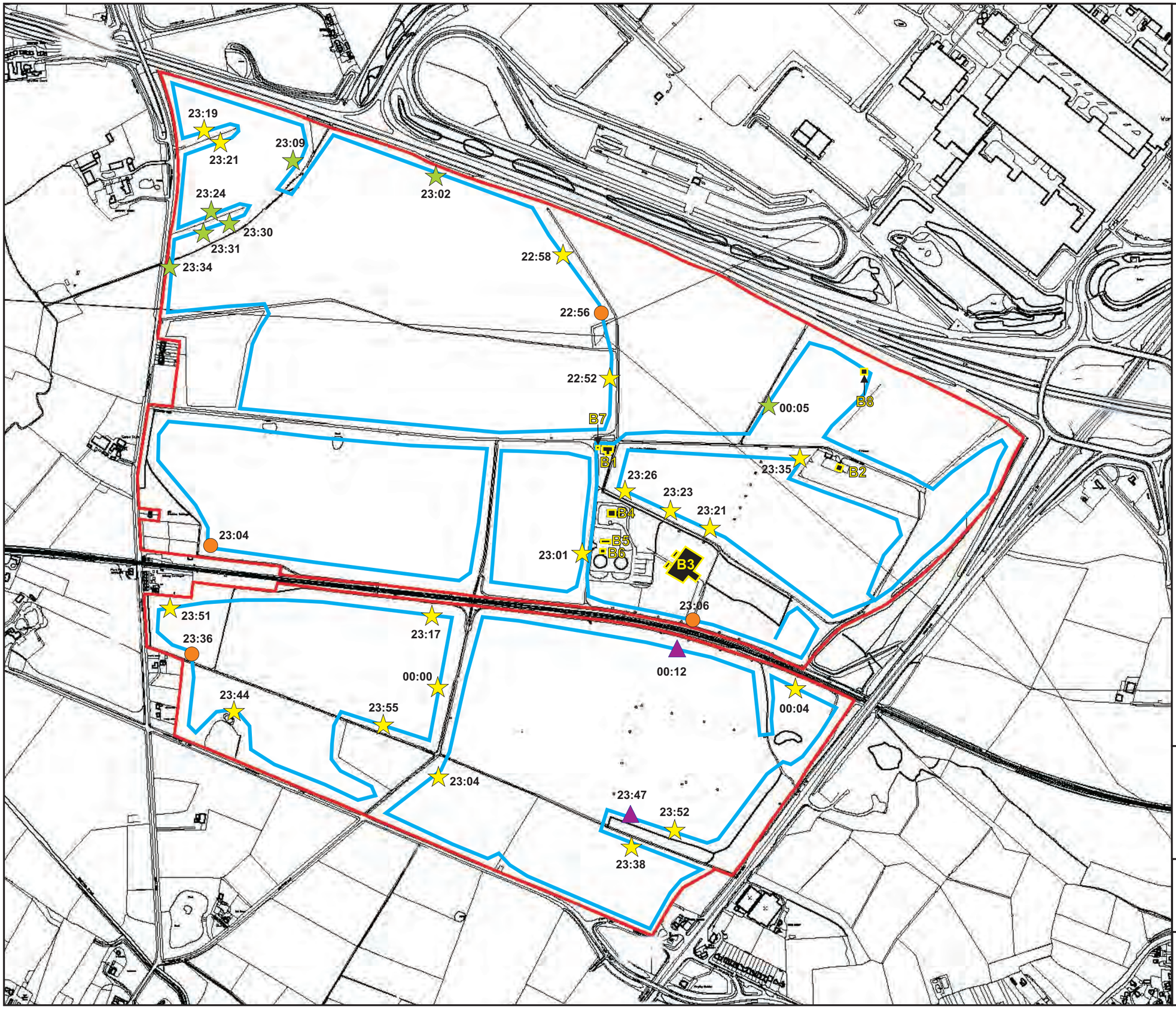
PLAN ECO1: SITE LOCATION

PLAN ECO2

Bat Survey Results 29.07.13



KEY:

- SITE BOUNDARY
- ACTIVITY SURVEY TRANSECT
- BUILDINGS
- COMMON PIPISTRELLE
- SOPRANO PIPISTRELLE
- MYOTIS SPECIES
- NOCTULE

N

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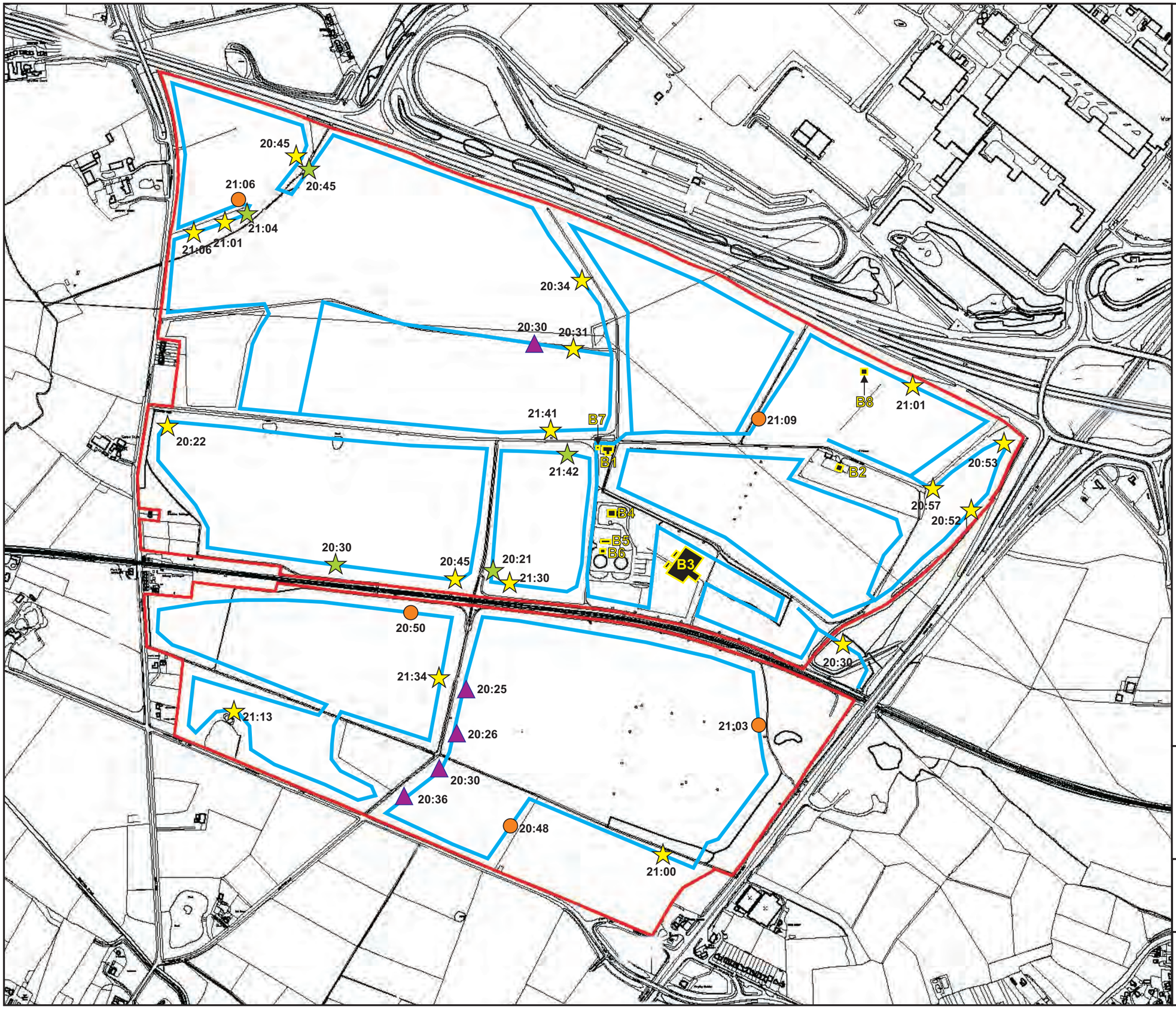
5433: EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

PLAN ECO2:
BAT SURVEY RESULTS
29.07.13

PLAN ECO3

Bat Survey Results 04.09.13



KEY:

- SITE BOUNDARY
- ACTIVITY SURVEY TRANSECT
- BUILDINGS
- COMMON PIPISTRELLE
- SOPRANO PIPISTRELLE
- MYOTIS SPECIES
- NOCTULE

N

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PLAN ECO3:
BAT SURVEY RESULTS
04.09.13

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APPENDIX 18: GREAT CRESTED NEWT REPORT

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GOODMAN SHEPHERD

EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

Great Crested Newt Survey Report

October 2013
5433.GCNRep.vf

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CONTENTS

PLANS

1. INTRODUCTION

1.1. Background

1.1.1. Ecology Solutions was commissioned by Goodman Shepherd to undertake presence / absence surveys for Great Crested Newt *Triturus cristatus* of waterbodies at the site at Etwall, South Derbyshire (see Plan ECO1).

1.2. Site Characteristics

1.2.1. The site is located to the southeast of the village of Etwall and approximately 4km southeast of Derby. It is situated in a largely agricultural environment; however, industrial buildings are present to the north, beyond the A50 trunk road which borders the site's northern boundary. The A38 Burton Road is to the east of the site; Egginton Road / Etwall Road is to the west; Carriers Road is to the south. The railway line between Derby and Uttoxeter passes through the site from east to west. A short row of terraced houses is situated to the immediate west of the site on Egginton Road.

1.2.2. The site predominantly comprises large arable fields separated by hedgerows with standard trees. A few small copses are present, in addition to a number of waterbodies. Boundary Road leads eastwards into the site from the junction with Eggington Road, from which there is access to the existing agricultural buildings, to two occupied and one unoccupied residential properties, and to the commercial premises of the Etwall Cake Plant and the Biffa Recycling Facility.

1.3. Purpose of the Report

1.3.1. The purpose of this report is to detail the methodology of the Great Crested Newt survey work at the site and to document the findings.

2. SURVEY METHODOLOGY

2.1. In order to compile background information on the site and the wider area, Ecology Solutions contacted the Derbyshire Wildlife Trust. Relevant records received are considered within this report.

2.2. Ecology Solutions undertook specific Great Crested Newt surveys on all ponds and ditches within the site boundary between April and June 2012. All of Ecology Solutions' surveys were undertaken in suitable weather conditions using three methods per visit (torch survey, bottle-trapping and netting) in accordance with the Natural England (previously English Nature) guidelines[1] to determine the presence or absence of Great Crested Newts[2].

2.3. Four surveys were undertaken on each waterbody to establish presence / absence of Great Crested Newts. In the event that presence of the species were confirmed during these initial four visits, a further two visits would be undertaken in order to establish the population size class.

2.4. Torch counting involves the use of high-powered torches to count the number of each amphibian species. The entire margin of the pond is walked once, slowly checking for Great Crested Newts.

2.5. In theory, netting involves sampling for a period dictated by the size of the waterbody, and the guidance recommends 15 minutes of search time for every 50 metres of shoreline. In practice, search times significantly exceeded this minimum specification.

2.6. The presence of other amphibian species within or in the vicinity of the waterbodies was also noted.

2.7. The terrestrial habitat within and immediately adjacent to the site was also assessed in terms of its potential to support Great Crested Newts.

Habitat Suitability Index (HSI)

2.8. The Habitat Suitability Index (HSI) for the Great Crested Newt was developed by Oldham *et al*. (2000)[3] and was applied during the surveys according to guidance set out by the National Amphibian and Reptile Recording Scheme.

2.9. The HSI is a numerical index, for which scores between 0 and 1 indicate the suitability of the habitat. The scoring system is shown in Table 2.1 below.

---

[1] English Nature (2001). *Great Crested Newt Mitigation Guidelines.* English Nature, Peterborough.

[3] Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). *Herpetological Journal* 10 (4), 143-155.

HSI Score	Pond Suitability
<0.5	Poor
0.5 – 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
>0.8	Excellent

Table 2.1. Habitat Suitability Index (HSI) Scores Summary.

2.10. All surveys were undertaken by two experienced ecologists under the supervision of a Great Crested Newt survey licence holder.

3. SURVEY RESULTS

3.1. No records of Great Crested Newt were returned from within the site as part of the data search exercise. The closest such records are located approximately 1km to the southeast of the site and date from 2011.

3.2. A number of the waterbodies within the application site were considered potentially suitable for species of amphibian (see Plan ECO2).

3.3. Four surveys were undertaken, the results of which are summarised in Table 3.1 below.

Survey No.	Date	Number	GCN	SN	PN	Other
1	16.04.12	P1	0	0	0	-
		P2	0	0	0	-
		P3 (Drying)	0	8 M; 5 F	0	-
		P4	0	0	0	-
		P5	0	0	0	-
		D1	0	0	0	-
		D2 (Partly Dry)	0	1 F	0	-
		D3	0	0	0	-
2	26.04.12	P1	0	0	0	-
		P2	0	0	0	-
		P3 (Dry)	-	-	-	-
		P4	0	0	0	-
		P5	-	-	-	-
		D1 (Dry)	-	-	-	-
		D2	0	0	0	-
		D3	0	0	0	-
3	11.06.12	P1	0	0	0	Common Frog
		P2	0	0	0	-
		P3 (Dry)	-	-	-	-
		P4 (Dry)	-	-	-	-
		P5	0	0	0	-
		D1	0	0	0	-
		D2 (Dry)	-	-	-	-
		D3 (Very shallow)	0	0	0	-
4	13.06.12	P1	0	0	0	Tadpoles
		P2	0	0	0	Common Frog
		P3 (Dry)	-	-	-	-
		P4 (Dry)	-	-	-	-
		P5 (Shallow)	0	0	0	-
		D1 (Shallow)	0	0	0	-
		D2 (Dry)	-	-	-	-
		D3 (Shallow)	0	0	0	-

Table 3.1. Great Crested Newts Survey Results 2012. GCN=Great Crested Newt *Triturus cristatus*; SN=Smooth Newt *Lissotriton vulgaris*; PN=Palmate Newt *Lissotriton helveticus*; M=Male; F=Female.

3.4. The Habitat Suitability Index results for each of the waterbodies are summarised in Table 3.2 below. The calculations show that ponds P3 to P5 and ditch D1 have 'poor' suitability for Great Crested Newts, whilst ditches D2 and D3 are 'below average' and ponds P1 and P3 are classed as 'average'.

Index	Pond / Ditch							
	P1	**P2**	**P3**	**P4**	**P5**	**D1**	**D2**	**D3**
SI1	1	1	1	1	1	1	1	1
SI2	0.22	0.4	0.05	0.05	0.05	0.05	0.05	0.05
SI3	1	0.99	0.1	0.1	0.5	0.1	1	0.5
SI4	0.33	0.33	0.33	0.33	0.33	0.67	0.33	0.67
SI5	1	0.3	1	1	0.3	0.6	0.3	0.2
SI6	0.67	1	1	1	1	1	1	1
SI7	1	1	1	1	1	1	1	0.67
SI8	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
SI9	0.33	0.33	0.67	0.67	0.33	0.33	0.33	0.67
SI10	0.5	0.9	0.8	0.8	0.5	0.9	0.9	1
HSI	0.61	0.63	0.49	0.49	0.45	0.47	0.51	0.51
Suitability	Average	Average	Poor	Poor	Poor	Poor	Below Average	Below Average

Table 3.2. Habitat Suitability Index.

3.5. The prevailing weather conditions for each of the surveys undertaken are summarised in Table 3.3 below.

Survey Number	Date	Cloud Cover (%)	Temperature (°C)
1	16.04.12	0	4
2	26.04.12	100	10
3	11.06.12	100	11
4	13.06.12	100	14

Table 3.3. Survey Weather Conditions.

3.6. The findings of the amphibian surveys show that pond P3 supports a medium population of Smooth Newts, according to the Herpetofauna Groups of Britain and Ireland (HGBI) classification criteria[4] and the Natural England Mitigation Guidelines, with a maximum count of thirteen Smooth Newts recorded on 16 April 2012. The findings also show that Ditch D2 supports a small population of Smooth Newts with just one individual recorded on 16 April 2012.

3.7. Ponds P1 and P2 have also been shown to support Common Frog *Rana temporaria*.

3.8. The surveys of waterbodies undertaken in 2012 did not record the presence of Great Crested Newts anywhere within the site. However, surveys for reptiles undertaken in late summer and autumn 2013 identified adult Great Crested Newts at two separate locations in the

[4]Herpetofauna Groups of Britain and Ireland (1998). *Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards.* ARGUK.

south of the site. This information is considered in further detail in Ecology Solutions' Reptile Survey Report of October 2013, reference 5433.ReptileRep.vf.

4. DISCUSSION

4.1. All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). The level of protection varies from protection from sale or trade only, as is the case with species such as Smooth Newt *Lissotriton vulgaris* and Common Toad *Bufo bufo*, to the more rigorous protection afforded to the Great Crested Newt.

4.2. Although Great Crested Newts are regularly encountered locally and throughout much of England, the UK holds a large percentage of the world population of the species. The UK has an international obligation to conserve the species, it receives full protection under domestic and European legislation.

4.3. Great Crested Newts 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 2010 ("the Habitats Regulations"). These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) Great Crested Newts;
- Deliberately to disturb Great Crested Newts in such a way as to:-
  - (i) be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or
  - (ii) affect significantly the local distribution or abundance of the species to which they belong;
- To damage or destroy any breeding or resting place used by Great Crested Newts;
- Intentionally or recklessly to obstruct access to any place used by Great Crested Newts for shelter or protection.

4.4. European Protected Species licences are available from Natural England in certain circumstances, and permit activities that would otherwise be considered an offence.

4.5. The surveys of waterbodies undertaken in 2012 did not record the presence of Great Crested Newts. Small to medium populations of Smooth Newt were recorded within ditch D2 and pond P1 respectively, in addition to Common Frog being recorded in ponds P1 and P2.

4.6. The HSI assessment classifies none of the waterbodies on site as having good suitability to support Great Crested Newts, with the ratings for the ponds ranging from 'poor' to 'average'.

4.7. On the basis of the HSI scores and results of the surveys completed, it was considered unlikely that Great Crested Newt is present on site.

4.8. However, as mentioned in the previous section and detailed in Ecology Solutions' Reptile Surveys Report of October 2013, the species was confirmed as being present in two locations in the south of the site during reptile surveys completed in late summer and autumn 2013.

4.9. The full legislative protection afforded to the species and its habitat would therefore apply. A comprehensive mitigation strategy would need to be devised in light of the detail of the proposed development. Depending on the nature of the expected impact, a Natural England European Protected Species licence may be needed to facilitate the development.

5. SUMMARY

5.1. Ecology Solutions was commissioned by Goodman Shepherd to undertake presence / absence surveys for Great Crested Newt *Triturus cristatus* of waterbodies within the site at Etwall, South Derbyshire (see Plan ECO1).

5.2. Ecology Solutions undertook specific Great Crested Newt surveys on all ponds and ditches within the site boundary between April and June 2012. Small to medium populations of Smooth Newt were recorded within ditch D2 and pond P1 respectively, in addition to Common Frog being recorded in ponds P1 and P2. No Great Crested Newts were recorded within any waterbodies within the site.

5.1. The HSI survey classifies none of the waterbodies on site as having good suitability to support Great Crested Newts, with the ratings for the ponds ranging from 'poor' to 'average'.

5.2. Based on the HSI scores and results of the surveys completed, it was considered unlikely that Great Crested Newt would be present on site.

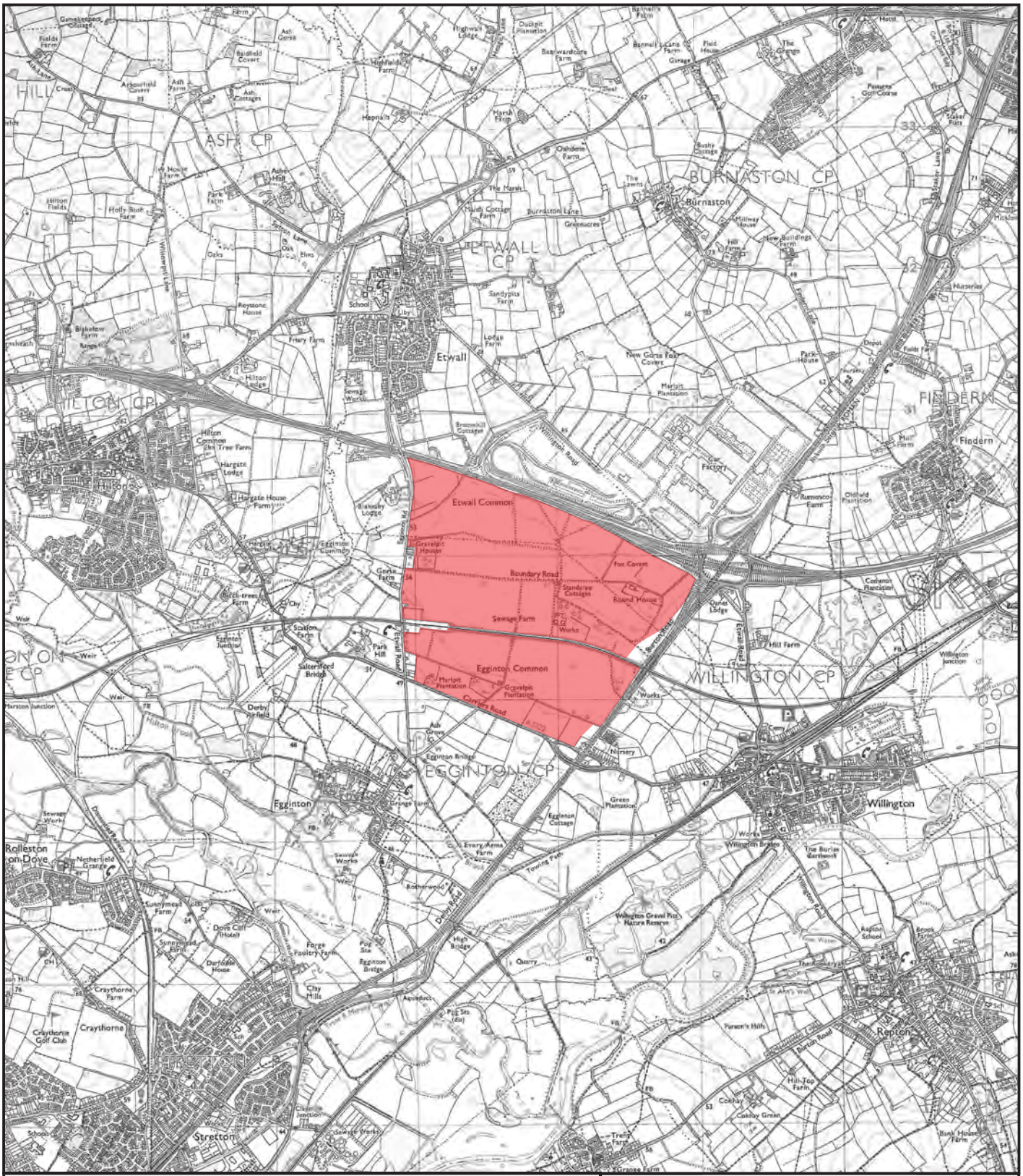
5.3. However, surveys for reptiles undertaken in late summer and autumn 2013 identified adult Great Crested Newts at two separate locations in the south of the site. This information is considered in further detail in Ecology Solutions' Reptile Survey Report of October 2013, reference 5433.ReptileRep.vf.

5.4. The full legislative protection afforded to the species and its habitat under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife & Countryside Act 1981 (as amended) would therefore apply. A comprehensive mitigation strategy would need to be devised in light of the detail of the proposed development. Depending on the nature of the expected impact, a Natural England European Protected Species licence may be needed to facilitate the development.

PLANS

PLAN ECO1

Site Location



KEY:

SITE LOCATION

N

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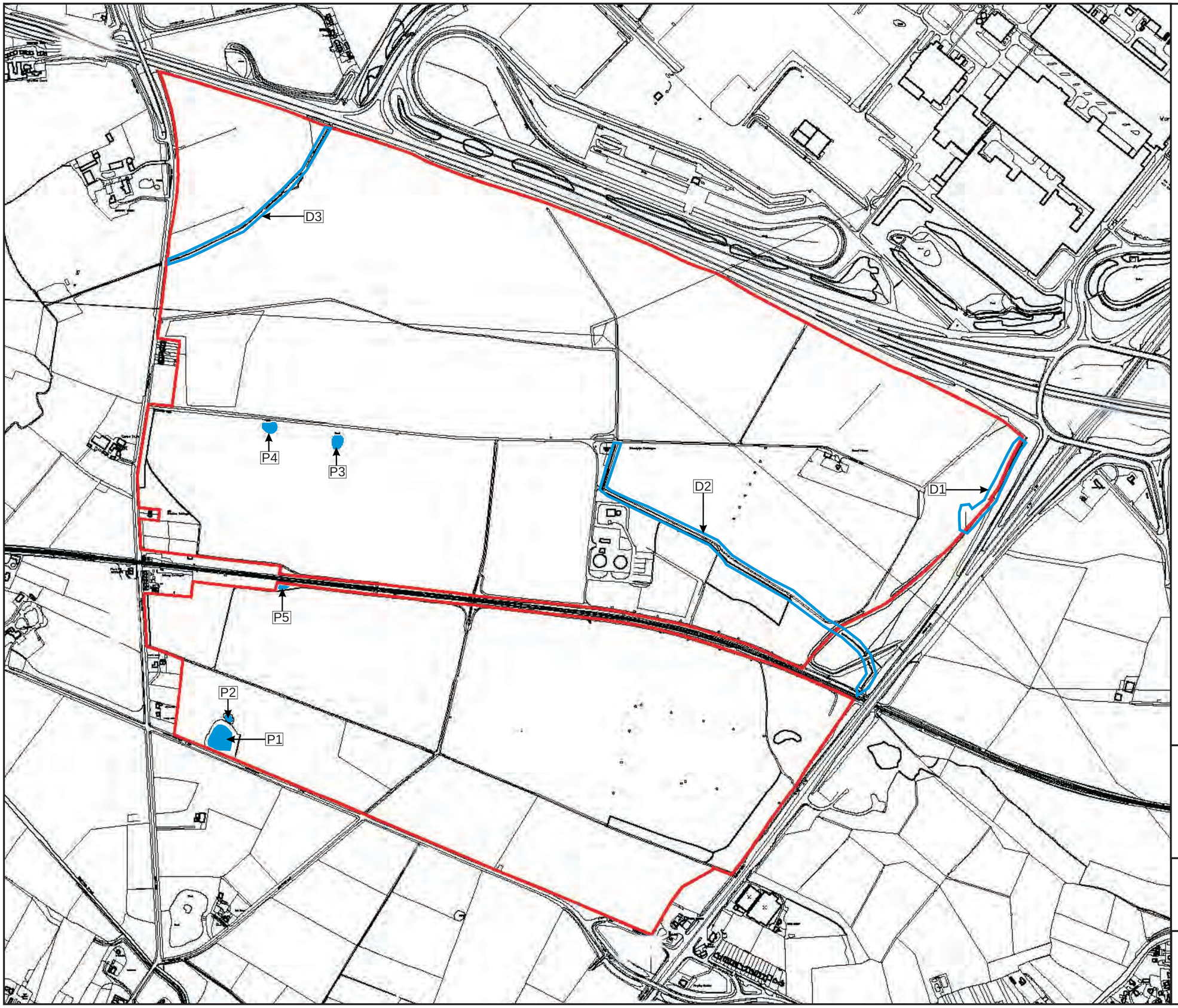
5433: EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

PLAN ECO1: SITE LOCATION

PLAN ECO2

Pond and Ditch Locations



KEY:

- SITE BOUNDARY
- POND
- DITCH

N

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PLAN ECO2:
POND AND DITCH LOCATIONS

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ecology solutions for planners and developers

APPENDIX 19: REPTILE REPORT

ecology solutions

GOODMAN SHEPHERD

EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

Reptile Survey Report

October 2013
5433.ReptileRep.vf

ecology solutions for planners and developers

CONTENTS

PLANS

1. INTRODUCTION

1.1. Background

1.1.1. Ecology Solutions was commissioned by Goodman Shepherd in July 2013 to undertake presence / absence surveys for reptiles at the site at Etwall, South Derbyshire (see Plan ECO1).

1.2. Site Characteristics

1.2.1. The site is located to the southeast of the village of Etwall and approximately 4km southeast of Derby. It is situated in a largely agricultural environment; however, industrial buildings are present to the north, beyond the A50 trunk road which borders the site's northern boundary. The A38 Burton Road is to the east of the site; Egginton Road / Etwall Road is to the west; Carriers Road is to the south. The railway line between Derby and Uttoxeter passes through the site from east to west. A short row of terraced houses is situated to the immediate west of the site on Egginton Road.

1.2.2. The site predominantly comprises large arable fields separated by hedgerows with standard trees. A few small copses are present, in addition to a number of waterbodies. Boundary Road leads eastwards into the site from the junction with Eggington Road, from which there is access to the existing agricultural buildings, to two occupied and one unoccupied residential properties, and to the commercial premises of the Etwall Cake Plant and the Biffa Recycling Facility.

1.3. Purpose of the Report

1.3.1. The purpose of this report is to detail the methodology of the reptile survey work at the site and to document the findings.

2. SURVEY METHODOLOGY

2.1. In order to compile background information on the site and the wider area, Ecology Solutions contacted the Derbyshire Wildlife Trust. Relevant records received are considered within this report.

2.2. The methodology utilised principally derived from guidance given in the Froglife Advice Sheet 10: Reptile Survey leaflet[1], the Herpetofauna Workers Manual[2], the Herpetofauna Groups of Britain and Ireland's (HGBI)[3] advisory note and Natural England's Standing Advice for Reptiles[4]. Furthermore, regard was had to the Reptile Habitat Management Handbook[5].

2.3. The surveys followed the standard guidelines and utilised squares of roofing felt, approximately 0.5m², known as 'tins'. The roofing felt or 'tins' provide shelter and heat up quicker than the surroundings in the morning and can remain warmer than the surroundings in the late afternoon. Being ectothermic (cold blooded), reptiles use them to bask under and raise their body temperature which allows them to forage earlier and later in the day.

2.4. The survey guidelines produced by Froglife state that a minimum of between 5 to 10 reptile 'tins' should be placed within a survey site. In 2013 Ecology Solutions placed 226 reptile 'tins' within suitable habitat across the site. (It should be noted that the numbering system for tins in the northern, central and southern areas of the site all commenced at 1, as shown on Plan ECO2.) These 'tins' were then checked seven times under suitable weather conditions during late August to early October 2013, as per the guidelines.

2.5. The 'tins' were checked early in the morning or late in the afternoon, when the refugia were not too hot and during suitable weather conditions, in line with the recommended guidelines.

2.6. Other refugia within the site, such as large rocks and logs were also searched under for any signs of reptiles during the survey work.

[1] Froglife (1999). *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife, Halesworth.
[2] Gent, T and Gibson, S. (2003). Herpetofauna Workers Manual. JNCC, Peterborough.
[3] Herpetofauna Groups of Britain and Ireland (1998). *Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards.* ARGUK.
[4] Natural England (undated). *Standing Advice Species Sheet: Reptiles*. http://www.naturalengland.org.uk/Images/Reptiles_tcm6-21712.pdf
[5] Edgar, P, Foster, J. and Baker, J. (2010). *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.

3. SURVEY RESULTS

3.1. No records of reptiles were returned from within the site as part of the data search exercise. The closest such record is that of a Grass Snake *Natrix natrix* located approximately 1.5km to the southeast of the site and dating from 2005.

3.2. The results of the 2013 reptile surveys are shown in Table 3.1 below.

Survey Number	Date	Reptiles Recorded	Tin Number
1	26.08.13	0	
2	30.08.13	0	
3	05.09.13	1 CL	5
4	09.09.13	0	
5	12.09.13	0	
6	17.09.13	0	
7	09.10.13	0	

Table 3.1. Summary of Reptile Survey Results. CL = Common Lizard.

3.3. The results from the 2013 surveys recorded a single adult Common Lizard *Zootoca vivipara* within the site, in a location shown on Plan ECO2.

3.4. The prevailing weather conditions and time for each survey are shown in Table 2.

Survey Number	Date	Time	Cloud Cover (%)	Temperature (°C)
1	26.08.13	10.45-13.45	70	21
2	30.08.13	12.55-15.55	95	17.5
3	05.09.13	10.00-13.30	40	21.5
4	09.09.13	10.00-12.00	20	12
5	12.09.13	10.00-13.00	100	15
6	17.09.13	10.00-12.00	40	10
7	09.10.13	14.30-16.30	90	10

Table 3.2. Survey Weather Conditions.

3.5. During the course of the reptile survey two Great Crested Newts *Triturus cristatus* were recorded on 12.09.13 under tins 8 and 25 in section 1-50 within the site. The locations of these records are shown on Plan ECO2.

4. DISCUSSION

4.1. Reptiles

4.1.1. All six British reptile species receive a degree of legislative protection that varies depending on their conservation importance.

4.1.2. Rare, endangered or declining species receive 'full protection' under the Wildlife and Countryside Act 1981 (as amended) as well as protection under the Conservation of Habitats and Species Regulations 2010 (as amended). The species that are fully protected are Smooth Snake *Coronella austriaca* and Sand Lizard *Lacerta agilis*. These receive the following protection from:

- killing, injuring, taking;
- possession or control (of live or dead animals, their parts or derivatives);
- damage to, destruction of, obstruction of access to any structure or place used for shelter or protection;
- disturbance of any animal occupying such a structure or place; and
- selling, offering for sale, possession or transport for purposes of sale (live or dead animal, part or derivative).

4.1.3. Owing to their relatively greater abundance in Britain, Common Lizard, Slow Worm *Anguis fragilis*, Grass Snake *Natrix natrix* and Adder *Vipera berus* are only 'partially protected' under the Wildlife and Countryside Act 1981 (as amended) and as such only receive protection from:

- deliberate killing and injuring;
- being sold or other forms of trading.

4.1.4. The habitat of common reptiles is therefore not directly protected. However, because of their partial protection, disturbing or destroying their habitat while they are present may lead to an offence.

4.1.5. All reptile species are listed as a Species of Principal Importance under Section 41 of the Natural Environment and Rural Communities Act (NERC) 2006. The NERC Act places responsibility upon public bodies to have regard for the conservation of biodiversity in England. With respect to habitats and species listed under Section 41, the Act requires the Secretary of State to:

…take such steps as appear…to be reasonably practicable to further the conservation of the living organisms and types of habitat included in any list published under this section, or…promote the taking by others of such steps.

4.1.6. A single adult Common Lizard was recorded. The results of the survey work would suggest that a low population of Common Lizard is present on the northern embankment of the railway line

passing through the site. Railway lines often serve as wildlife corridors, particularly for species such as common reptiles.

4.1.7. Detailed proposals for the site will need to be considered to determine whether any impacts on this reptile population are likely, in order for an appropriate mitigation strategy to be devised as considered necessary.

4.2. Great Crested Newts

4.2.1. All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). The level of protection varies from protection from sale or trade only, as is the case with species such as Smooth Newt *Lissotriton vulgaris* and Common Toad *Bufo bufo*, to the more rigorous protection afforded to the Great Crested Newt.

4.2.2. Great Crested Newts 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 2010 (as amended). These include provisions making it an offence:

- Deliberately to kill, injure or take (capture) Great Crested Newts;
- Deliberately to disturb Great Crested Newts in such a way as to:-
  - (i) be likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or to hibernate or migrate; or
  - (ii) affect significantly the local distribution or abundance of the species to which they belong;
- To damage or destroy any breeding or resting place used by Great Crested Newts;
- Intentionally or recklessly to obstruct access to any place used by Great Crested Newts for shelter or protection.

4.2.3. European Protected Species licences are available from Natural England in certain circumstances, and permit activities that would otherwise be considered an offence.

4.2.4. Two adult Great Crested Newts were recorded in the south of the site during reptile surveys undertaken in 2013. However, it is noted that the surveys of ponds within the site undertaken in 2012 (and detailed in Ecology Solutions' report of October 2013, reference 5433.GCNRep.vf) found no evidence of the presence of this species. Nonetheless the population present would be subject to the full legislative protection summarised above.

4.2.5. Detailed proposals for the site would need to be considered to determine whether any impacts on this Great Crested Newt population are likely, in order for an appropriate mitigation strategy to be devised as considered necessary. Depending on the nature

of the expected impact, a Natural England European Protected Species licence may be needed to facilitate the development.

5. SUMMARY

5.1. Ecology Solutions was commissioned by Goodman Shepherd in August 2013 to undertake presence / absence surveys for reptiles within the site at Etwall, South Derbyshire (see Plan ECO1).

5.2. Surveys were undertaken with regard to accepted guidelines on seven occasions under suitable weather conditions during late August to early October 2013.

5.3. A single adult Common Lizard was recorded. The results of the survey work would suggest that a low population of Common Lizard is present on the northern embankment of the railway line passing through the site. Railway lines often serve as wildlife corridors, particularly for species such as common reptiles.

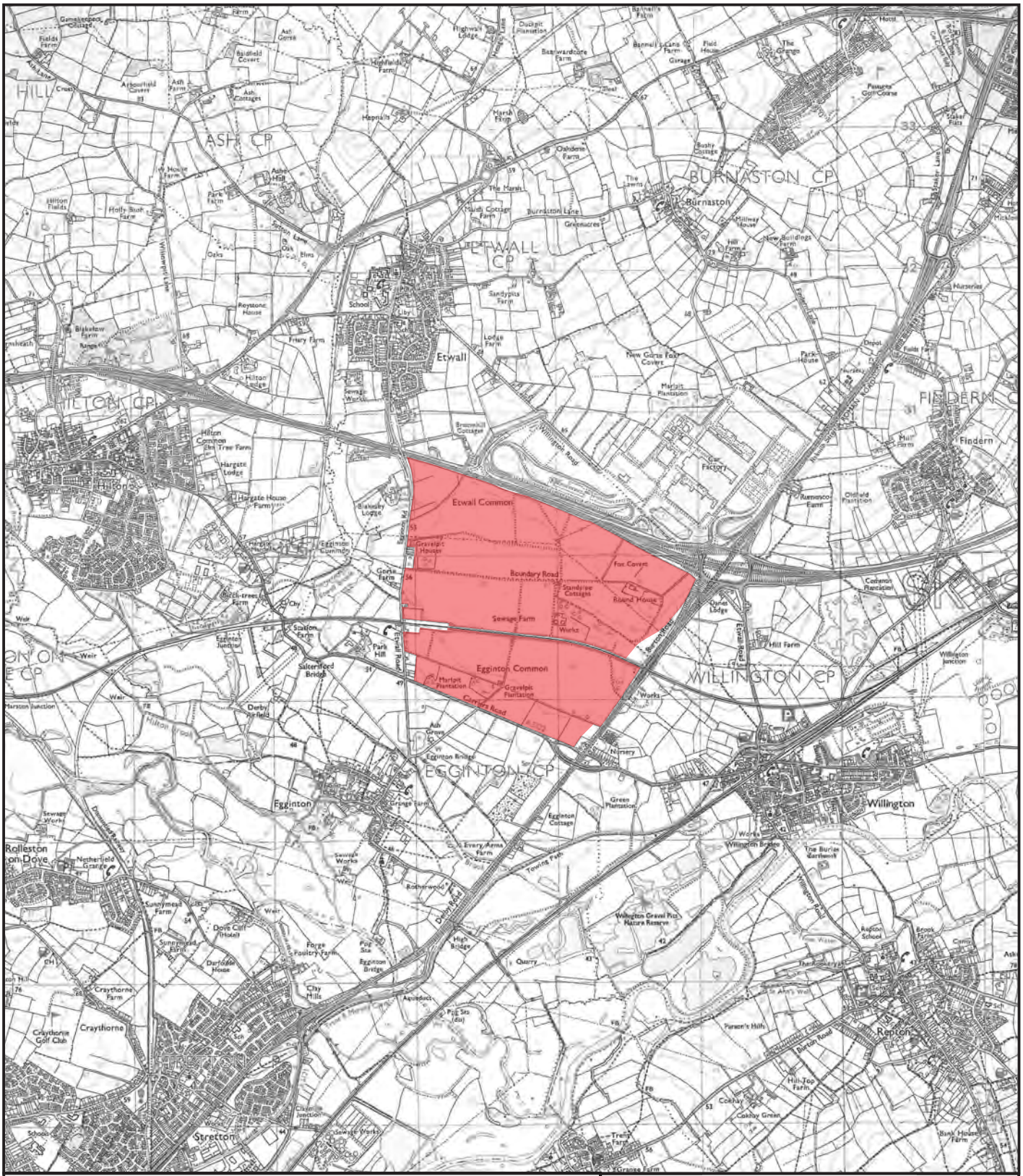
5.4. Although not the specific target of the survey described in this report, two adult Great Crested Newts were recorded in the south of the site during reptile surveys undertaken in 2013. However, it is noted that the surveys of ponds within the site undertaken in 2012 (and detailed in Ecology Solutions' report of October 2013, reference 5433.GCNRep.vf) found no evidence of the presence of this species.

5.5. Detailed proposals for the site would need to be considered to determine whether any impacts on the identified reptile and Great Crested Newt populations are likely, in order for an appropriate mitigation strategy to be devised as considered necessary. Depending on the nature of the expected impact, a Natural England European Protected Species licence may be needed to facilitate the development.

PLANS

PLAN ECO1

Site Location



KEY:

SITE LOCATION

N

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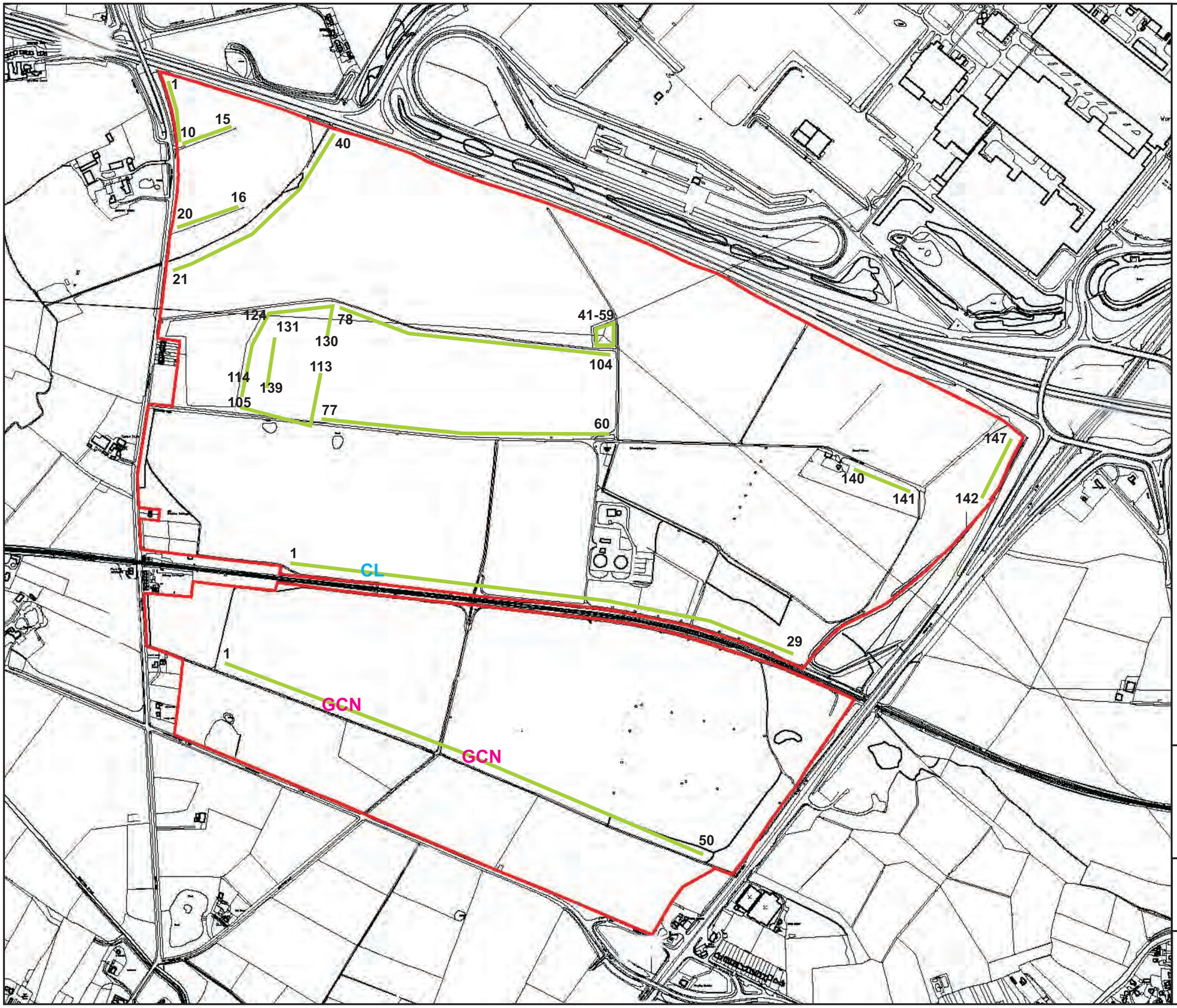
5433: EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

PLAN ECO1: SITE LOCATION

PLAN ECO2

Reptile Survey Results 2013



KEY:

- SITE BOUNDARY
- REPTILE TIN LOCATION
- CL — COMMON LIZARD
- GCN — GREAT CRESTED NEWT

N

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5433: EAST MIDLANDS INTERMODAL PARK, ETWALL, SOUTH DERBYSHIRE

PLAN ECO2:
REPTILE SURVEY RESULTS
2013

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