BIRCHALL GARDEN SUBURB
WELWYN GARDEN CITY
HERTFORDSHIRE

Badger Survey Report
Prepared for: Tarmac Ltd

REDACTED VERSION

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CONTENTS

DOCUMENT REFERENCES

DRAWINGS

Drawing 1: Badger Survey Plan (Not included)

1.0 Introduction

1.1 Background

This report presents the findings of a badger survey of land to the north and west of the A414 road on the western outskirts of Welwyn Garden City, Hertfordshire (Ordnance Survey grid reference: TL 26902 11137). It has been prepared by SLR Consulting Limited (SLR) on behalf of Tarmac Ltd to provide information in support of the proposed Birchall Garden Suburb residential development at the site.

This study aims to confirm the presence or absence of badger activity at the site and to consequently determine whether measures would be required to ensure that the proposed development does not inadvertently contravene the Protection of Badgers Act (1992). The survey acts to update the results of a previous survey completed at the site in March 2015 by Phillip Parker Associates Ltd.

Prior to commencement of the survey records from Herts Environmental Records Centre were also reviewed as these include submissions from the local Badger Group. These records include a number of local badger road casualty records and three records within the site of setts. The setts identified in the Badger Group records have all been inspected as part of this survey.

1.2 Legislative Background

Badgers and their setts are afforded protection under the Protection of Badgers Act (1992 and amendments) which, amongst other actions, makes it an offence to: kill, injure, take or possess a badger or attempt to do so; to damage, destroy or obstruct access to any structure or place that a badger uses for shelter or protection; or to disturb a badger whilst it is occupying a structure or place which it uses for shelter or protection. However, the badger is a relatively common species and the protection is afforded to them to prevent cruel ill-treatment (badger baiting etc.), not for reasons of rarity.

The Protection of Badgers Act was introduced to combat the cruel ill-treatment and persecution to which badgers are sometimes subjected. This report identifies the location of a number of badger setts and therefore to safeguard these animals the report should be treated as **confidential** and not released into the public domain.

1.3 Study Aims and Objectives

The aims of the survey work undertaken in April 2017 were to:

- to confirm the presence or absence of badger activity at the site;
- to record the location of badger setts and other field signs indicative of badger activity, should they be present;
- to establish a baseline record of badger activity that can be used to support a Natural England sett exclusion or disturbance licence, should one become necessary in the future; and
- should badger setts be located, this report shall be used to provide a baseline to identify potential conflicts between the proposed development plans and the Protection of Badgers Act (1992) in the Ecological Impact Assessment.

This report does not provide a detailed mitigation strategy such as would be needed to apply for a sett interference licence from Natural England. Once detailed development proposals have been finalised, it will be possible to examine these and confirm whether licensing is required and, if necessary, to produce a detailed mitigation strategy.

2.0 Methodology

The badger activity survey method broadly followed recommendations made in Neal and Cheeseman (1996[1]), with a detailed survey method provided in Section 2.2, below.

2.1 Survey Area

The application site is located approximately 2.8km east of Welwyn Garden City town centre and approximately 475m west of Cole Green. The site is bounded to the north by the Panshanger suburb of Welwyn Garden City and Panshanger aerodrome; to the east by agricultural land and the A414 road; to the south by the A414 road; and to the west by residential suburbs of Welwyn Garden City, The Commons Nature Reserve, and Mill Green Golf Course.

Drawing 1 shows the site boundary, which extends to 256 hectares (ha). All accessible land was surveyed to ensure that as much information on the local badger population was gathered as possible.

Typically during badger surveys a buffer zone of up to 50m is surveyed around the site boundary, where this is accessible. However, access constraints limited the survey to the site boundary in some areas (see Section 2.4 for information on access constraints).

Details of the site habitats are provided in the main Ecological Impact Assessment (EcIA) Report, but in summary the site habitats comprise arable fields in active cultivation, large areas of infrequently managed semi-improved grassland, large blocks of broad-leaved woodland, mature hedgerows, dense scrub, ponds, and Birchall Farm.

2.2 Detailed Survey Methods

The badger activity survey was conducted on the 11th – 13th April 2017 by an experienced badger ecologist from SLR.

The surveys comprised a thorough walkover of all accessible land during daylight hours to visually inspect and assess them for their potential to support badgers. Particular attention was paid to the inspection of hedgerows, scrub patches, woodland, ditches and banks as these features are particularly likely to support badger setts. Hedgerows and ditches were inspected from both sides to minimise the risk of any field signs being overlooked.

Evidence of badger activity searched for included the features described in Sections 2.2.1 to 2.2.6.

2.2.1 Setts

The entrances to badger setts are typically semi-circular in shape, with flattened bases, as opposed to the oval or circular tunnels associated with rabbits and foxes. They are typically larger than the holes of other common burrowing mammals, with tunnels usually being 22 to 25cm wide or greater, and approximately 190 to 200mm high.

The presence or absence of particular field signs and field sign combinations associated with each sett can help indicate the frequency with which badgers are currently using it. For example, the presence of freshly excavated spoil and discarded bedding materials on the spoil heap associated with the sett entrance may indicate a currently high level of activity, whereas the accumulation of leaf-litter within the tunnel mouth may indicate a lower frequency of activity. The season in which the badger survey is conducted will have an impact on the interpretation of such field signs, as badger activity fluctuates throughout the year. Badgers are

[1] Neal E & Cheeseman C (1996) *Badgers.* Poyser Natural History

capricious animals, moving between setts within their territory in response to environmental factors such as the availability of seasonal food resources, the accumulation of parasites, or territoriality.

In areas of confirmed badger activity all mammal burrows of sufficient aperture to permit access by badgers should be recorded, regardless of their origin. During licensed badger works any displaced badgers may seek shelter within these burrows and, under the auspices of the governing legislation, any such burrow would from then on be treated as a badger sett. Therefore, despite not exhibiting any definitive signs of badger activity and thus not technically being badger setts at the time of survey, it is prudent to record all potential places a badger may seek shelter so that they may be accounted for if a mitigation programme is required at a future date. Such burrows have been recorded as 'potential setts' in the results and on Drawing 1.

2.2.2 Characteristic Worn Pathways

Badgers are animals with a squat stature and a low profile which, in combination with their long ventral hairs, causes them to effectively sweep the ground as they pass. Over time the passage of the badgers along frequently travelled routes wears away vegetation and results in the formation of characteristic tracks. However, it is usually only possible to definitively confirm that such tracks are of badger origin when they occur close to identified badger setts. This sweeping effect also results in the entrance tunnels to frequently used badger setts being cleared of leaf-litter and other natural debris.

2.2.3 Paw Prints

Badger paw prints are characteristic and easily identified. During the survey any patches of damp ground, mud and the surface of spoil heaps were thoroughly searched for the presence of paw prints.

2.2.4 Hairs

Badger hairs are frequently shed within setts or caught in fence wires at points where badgers have forced a way underneath. The identification of badger hairs provides conclusive proof of the presence of these animals at a location, but some caution must be employed during the interpretation of such field signs as hairs may persist for several years dependent upon local environmental conditions.

2.2.5 Latrines

Badgers usual defecate into prepared pits, providing a distinctive field sign of their presence. A number of pits may be found together, forming a latrine. Dung pits and latrines are often used by badgers to mark territorial boundaries and examination of the faeces can provide information as to the badgers' current dietary components.

2.2.6 Foraging Signs

As badgers forage for invertebrates they will frequently leave distinctive marks as they tear into the turf with their claws and snout. These are commonly referred to as "snuffle holes".

2.3 Survey Personnel

The survey was conducted by Robert Williams BSc MSc ACIEEM, a Senior Field Ecologist with SLR, who has over seven years' experience conducting badger surveys.

2.4 Limitations to Survey

Lack of evidence of a species during a survey does not necessarily preclude it from colonising a site at a later date. Whilst not typically being expansionist in character, badgers may extend territories to occupy adjacent land if it is vacant and suitable. An ecological study provides only a "snapshot" of the conditions prevailing at

the time of survey. As previously described, badgers are capricious animals that move between setts in response to changes in environmental factors and the activity level of the identified setts may fluctuate during the year; as a consequence of this a sett is generally not considered to be inactive unless conclusive field evidence demonstrates that it has not been used for a period in excess of twelve months. Additionally badgers may excavate new setts or re-open setts previously categorised as being inactive.

April is generally considered to be an appropriate time to conduct badger surveys as the badgers will be actively foraging and vegetation growth will still be limited, minimising the risk of field signs being obscured by the undergrowth.

As described above, the survey area was constrained to areas within the application site boundary in some areas and consequently it was not possible to investigate the usual 50m buffer zone around the entire site boundary. Areas where the buffer zone around the site boundary could not be surveyed include Holwell Hyde Farm, Panshanger aerodrome, the Eco Aggregates Recycling Centre, Burnside industrial units, and residential gardens along the west of the site boundary.

This is not considered to have a significant impact on the validity of the survey results or on the ability of the ecologists to meet the aims and objectives of this report as badgers are less likely to build setts in these areas due to their active use and high levels of human activity. Any setts within these areas will not be directly impacted as they are outside of the site boundary.

3.0 Results

3.1 Contextual Information

Table 1, which can be found in Section 3.2, presents an assessment of the field evidence recorded at each sett and the sett activity level extrapolated from this during the survey. A number of terms are used within the results table that require definition, most notably regarding the position the sett is considered to hold within the sett hierarchy and the level of badger activity recorded at each sett.

3.1.1 Sett Class

Within a territory a social group of badgers will have a number of setts of varying size and frequency of use. There will usually be a single "main" sett that is constantly occupied and used for breeding, plus, in descending order of rank, a number of smaller setts known as "annexe", "subsidiary" and "outlier" setts, although this may vary in urban areas or as the result of anthropogenic influence. Whilst it is one of the factors used in considering the position of a sett within the hierarchy, the actual number of entrances possessed by a sett of each class is variable and largely dependent upon environmental factors. Setts excavated in food-rich, undisturbed, sandy soil, and/or rural areas are likely to possess more entrances that a sett of similar hierarchical position but located within an area of scarce food resources, high disturbance, clay-rich soils or an urban locality. Setts with a higher position in the hierarchy will be more frequently used, with the main sett being more or less constantly occupied and an outlier sett infrequently so. Outlier setts are often only occupied when seasonal local resources are available.

- *Main setts:* typically possess a comparatively large number of entrances compared to the other setts within the territory (from approximately eight to thirty or more), but not necessarily always the largest sett within a territory. A main sett will be constantly occupied by badgers and is typically used for breeding by the dominant female;
- *Annexe setts:* are clearly linked to the main sett (or sometimes setts of other rank) by well-worn badger tracks. They may comprise any number of entrances and are normally in frequent use by badgers, but they are not necessarily constantly occupied. May occasionally be used for breeding by non-dominant females;
- Subsidiary *setts:* support a variable number of entrance holes, normally in the range of three to eight, and are not connected to the main sett by well-worn badger tracks. The frequency of use of subsidiary setts varies greatly, but rarely will they be constantly occupied and often they are in sporadic use. May occasionally be used for breeding by non-dominant females;
- *Outlier setts:* usually comprise one or two entrances only and are not connected to the main sett by well-worn tracks. They are often in sporadic use, but may display periods of highly active use when local seasonal resources are available (for example outlier setts near fruit trees or arable fields may experience periods of high use during harvest time). May occasionally be used for breeding by non-dominant females.

3.1.2 Sett Activity Level

Without the long-term employment of constant video surveillance, a practice which is both unrealistic and unreasonable on the majority of sites, the interpretation of field signs is necessary in order to estimate the current frequency with which a badger sett is being used. Such interpretations are therefore qualitative measures rather than quantitative ones. This report ranks the sett activity level on a scale from inactive to highly active, with estimates of the frequency of use being provided. Please note that as the predicted frequencies of use are based on the surveyor's interpretation of the field evidence they are estimates only. The divisions in activity level used in this report are made as follows:

- *Inactive*: as previously described, badgers may use a particular sett for only a short period each year. This means that there will sometimes be very few physical indicators of activity at a sett that is never-the-less active. As a result a sett will not be described as inactive unless there is conclusive evidence that it has been disused for a period of greater than three months.
- *Very Low: a* sett described as having a very low frequency of activity will either be blocked or partially blocked with leaf-litter and other natural debris. Vegetation will most likely be encroaching onto the spoil heap and into the mouth of the tunnel, and there will be no freshly excavated spoil or discarded bedding on the spoil heap. A sett with a very low activity level is estimated to be used by badgers on an average of only once every two or more months or less, but displays evidence of use within the preceding twelve months. Setts where no field signs of recent badger activity are recorded but the sett cannot conclusively be demonstrated to have been inactive for a period of more than three months are recorded as being of very low activity.
- *Low:* setts considered to be of low activity level will contain significant volumes of leaf-litter and other natural debris as the frequency of badger passage will not be sufficient to sweep it from the tunnel mouth, but the tunnel will not usually be blocked and badgers will be able to gain access. There will not usually be significant volumes of freshly excavated earth on the spoil heap but a scattering of spoil may be present. There may also be some vegetation encroachment upon the spoil heap or sett entrance. A sett considered to be of low activity level is estimated to be used approximately once per month.
- *Moderate: s*etts displaying moderate levels of activity will usually be swept clean of leaf-litter or contain just a scattering of freshly gathered debris. There will typically be evidence of some recent soil excavation on the spoil heap and this may also contain fragments of discarded bedding materials. Dropped bundles of bedding material may also be present in the vicinity of the tunnel entrance. The passing of the badgers may have begun to sweep a path over the spoil heap and leading away from the sett. A sett described as being moderately active is estimated to be used by badgers approximately on a monthly to weekly basis.
- *High:* a sett with a high level of activity will be swept clear of leaf-litter and debris and there will usually be a significant volume of freshly excavated spoil on the surface of the spoil heap (however, very old setts in stable substrates may be highly active without having large volumes of fresh soil on their associated spoil heaps). Fresh paw prints may be noted if the surface of the spoil heap is soft. Large volumes of discarded bedding may be present. There will be no encroachment by vegetation and a well worn path will issue from the tunnel mouth and cross the spoil heap. Highly active setts will be in use several times per month, if not several times per week.
- *Very High:* a sett considered to be very highly active will usually have large volumes of freshly excavated soil and discarded bedding on the associated spoil heaps. Badger paw prints will likely be numerous where the surface of the spoil heap is appropriate. There will be no encroachment by vegetation and a well swept path will issue from some or all of the sett entrances. Where the substrate into which the sett is dug is suitable, the frequency of passage of the badgers may lead to the walls of the tunnel and the path in front of the sett taking on a smoothed or "polished" appearance as they are regularly brushed by the animals' coats. Such a sett will be in constant or near constant occupation by badgers.

3.2 Badger Activity Survey Results

To date ten confirmed badger setts and seven potential setts have been located within the survey area (see Drawing 1 for sett locations and Table 3-1 for a summary of setts found). Sett numbers have been allocated on an encounter basis and have no intentional relationship with sett hierarchy. Mammal burrows of a suitable size and shape for badger but which exhibit no definitive signs of badger activity are recorded as 'potential

setts'. No average activity level is given for potential setts as their use by badger has not been confirmed and thus field signs noted (i.e. fresh digging) could be as a result of use by rabbits (*Oryctolagus cuniculus*) or fox (*Vulpes vulpes*). In addition to the setts found a total five badger latrines were also recorded during the survey. The latrines were spread across the application site, with latrines found [redacted]. Two badger carcasses were also found during the survey. One of the carcasses was located [redacted] and is likely to have been a road casualty. The second carcass appeared to be that of a juvenile badger and was located in close proximity to sett 6.

Table 3-1:
Descriptions of the Badger Setts identified at the Birchall Garden Suburb site during the April 2017 survey

Sett Name	Type of Sett	No. of Entrances	Average Activity Level
1	Potential sett	1	N/A
2	Outlier	3	Moderate
3	Main	16	Highly Active
4	Annex	9	Active
5	Subsidiary	7	Active
6	Outlier	2	Defunct
7	Outlier	2	Moderate
8	Potential sett	1	N/A
9	Potential sett	1	N/A
10	Outlier	1	Moderate
11	Outlier	2	Defunct
12	Potential sett	2	N/A
13	Potential sett	1	N/A
14	Potential sett	2	N/A
15	Subsidiary	15	Low
16	Outlier	1	Low
17	Potential sett	2	N/A

Each sett is addressed below, with field data relating to the sett status and activity level being discussed in conjunction with data recorded from the wider habitat to provide context.

3.2.1 Sett 1

Sett type: **Potential sett**

Number of entrances: **1**

Activity level: **N/A**

A single hole of a suitable size and shape for badger dug [redacted]. The tunnel remains over 20cm wide beyond arms' length and has a small compacted spoil heap at the tunnel entrance. No badger evidence was found and there was no obvious path to the hole through adjacent dense vegetation. Fresh rabbit droppings were noted in the tunnel entrance and it is likely that the hole was occupied by rabbits at the time of survey.

3.2.2 Sett 2

Sett type: **Outlier**

Number of entrances: **3**

Activity level: **Moderate**

Sett 2 is considered moderately active and comprises three holes dug [redacted] One of the holes has a clear and well swept entrance with no debris inside the hole. Badger hair was found inside the hole and within the associated spoil heap. The spoil heap is compacted and un-vegetated with no evidence of fresh digging. The second hole is less active and had small accumulations of dead leaves and twigs in the entrance. Badger hair was also found in the entrance to this hole and the entrance has a small compacted and un-vegetated spoil heap. The third hole is largely blocked with accumulations of rotting leaves and sticks, and does not appear to have been recently used. No badger evidence was found in the vicinity of this third hole.

3.2.3 Sett 3

Sett type: **Main**

Number of entrances: **16**

Activity level: **Highly Active**

A highly active main sett comprising 13 active and 3 partially active holes. [redacted] The active holes are all well-swept, open and unobstructed with many having badger hair and spent bedding material in the tunnel entrance and associated spoil heaps. The spoil heaps of the holes are large and un-vegetated, and many have fresh digging and badger paw prints outside the holes. [redacted] The three partially active holes had light accumulation of debris within the entrance but were still accessible to badgers. Further entrances with low or very low levels of activity may potentially be present, obscured within dense undergrowth. A worn path leads northwards from sett 3 towards sett 4.

Sett 3 was previously recorded in the survey by Phillip Parker Associates Ltd in March 2015. At this time the sett was classed as a main sett and noted to have five active and nine disused holes.

3.2.4 Sett 4

Sett type: **Annex**

Number of entrances: **9**

Activity level: **Active**

This active nine hole sett is an annex to the nearby main sett (Sett 3). The sett is located [redacted] and comprises three active, five partially active, and one disused hole. The three actives holes are all well swept and unobstructed with large compacted spoil heaps. Each of the active holes had badger hair and fragments of bedding material in the entrance. Worn pathways are evident in

vegetation between the active holes and the edge of the arable field. The partially active holes had light accumulations of debris in the hole entrance although otherwise the holes remained open. The holes were also beginning to become concealed by the growth of surrounding vegetation. The single disused hole had partially collapsed with the entrance being more or less completely blocked by soil and other debris.

Sett 4 was previously recorded in the survey by Phillip Parker Associates Ltd in March 2015. At this time the sett was classed as an annex to the main sett and noted to have three active and five disused holes.

3.2.5 Sett 5

Sett type: **Subsidiary**

Number of entrances: **7**

Activity level: **Active**

An active seven hole subsidiary sett located [redacted]. The sett comprises three active, three partially active, and one disused hole. The active holes are well swept and unobstructed, with badger hair found in the entrance of each hole. One of the holes had a particularly large spoil heap and large amounts of fresh digging, whilst the other two holes had averaged-sized compacted and un-vegetated spoil heaps. The three partially active holes had light accumulations of leaves and other debris but were otherwise unobstructed. The one disused hole was completely blocked by natural debris and was no longer accessible to badgers.

3.2.6 Sett 6

Sett type: **Outlier**

Number of entrances: **2**

Activity level: **Defunct**

Sett 6 comprised two inactive holes which had both partially collapsed and were not accessible to badgers at the time of survey. The characteristic size and shape of the holes, and the presence of substantial spoil heaps indicates that these holes were once a badger sett. The carcass of a dead juvenile badger was found within 10m of these holes. No other signs of recent badger activity were noted.

3.2.7 Sett 7

Sett type: **Outlier**

Number of entrances: **2**

Activity level: **Moderate**

A moderately active two hole outlier sett located [redacted]. Both holes are open and unobstructed with only a scattering of fresh fallen leaves in their entrances. Both holes had small, compacted spoil heaps and there was no evidence of fresh digging. Badger hair was found in the entrance to both holes, however, no other evidence of recent badger activity was found.

3.2.8 Sett 8

Sett type: **Potential sett**

Number of entrances: **1**

Activity level: **N/A**

A single hole of a suitable size and shape for badger dug [redacted]. Fresh rabbit droppings were noted in the tunnel entrance and it is likely that the hole was occupied by rabbits at the time of survey. No evidence of recent badger activity was found.

3.2.9 Sett 9

Sett type: **Potential sett**

Number of entrances: **1**

Activity level: **N/A**

A single hole of a suitable size and shape for badger [redacted]. Fresh rabbit droppings were noted in the tunnel entrance and it is likely that the hole was occupied by rabbits at the time of survey. No evidence of recent badger activity was found.

3.2.10 Sett 10

Sett type: **Outlier**

Number of entrances: **1**

Activity level: **Moderate**

A single hole outlier sett with a compacted spoil heap located [redacted]. The hole was partially active at the time of survey with only light accumulation of leaves within the entrance and remaining otherwise unobstructed. Badger hair was found within the hole. There was a distinct pathway from the edge of the arable field to the sett entrance.

3.2.11 Sett 11

Sett type: **Outlier**

Number of entrances: **2**

Activity level: **Defunct**

Both holes of this outlier sett are completely blocked with natural debris and thus the sett is now considered defunct. The characteristic size and shape of the holes, and the presence of substantial spoil heaps indicates that these holes were once a badger sett. There is no evidence of recent badger activity around the sett.

3.2.12 Sett 12

Sett type: **Potential sett**

Number of entrances: **2**

Activity level: **N/A**

Two holes of the correct size and shape for badger amongst a network of rabbit holes. Both tunnels remained over 20cm wide beyond arms' length. No badger evidence was recorded in proximity to holes, however, based on fresh evidence the holes were considered to be in active use by rabbit at the time of survey.

3.2.13 Sett 13

Sett type: **Potential sett**

Number of entrances: **1**

Activity level: **N/A**

A single hole of the correct size and shape for badger at [redacted]. The tunnel remained over 20cm wide beyond arms' length and the entrance had a small compacted spoil heap. No badger evidence was found and there is no evidence of a worn pathway to the hole. No other mammal evidence was recorded in the vicinity of the hole.

3.2.14 Sett 14

Sett type: **Potential sett**

Number of entrances: **2**

Activity level: **N/A**

Two holes of the correct size and shape for badger amongst a network of rabbit holes. Both tunnels remained over 20cm wide beyond arms' length. No badger evidence was recorded in proximity to holes, however, based on fresh evidence the holes were considered to be in active use by rabbit at the time of survey.

3.2.15 Sett 15

Sett type: **Subsidiary**

Number of entrances: **15**

Activity level: **Low**

Sett 15 was previously classed as a main sett with seven active and three disused holes in surveys completed by Phillip Parker Associates Ltd in 2015. Since this time activity levels at the sett appear to have markedly decreased with only three partially active holes evident during the survey. A further twelve disused holes were also present. [redacted]

The three partially active holes were open but had accumulations of light debris within the entrance holes. Badger hair was found in the entrances to two of these holes. Fox and rabbit evidence was also present around the entrances to the holes. There was no evidence of fresh digging or bedding material around any of the sett entrances. The twelve disused holes were all completely blocked with natural debris or partially collapsed. There was no evidence of badgers trying to clear or re-open these inactive holes.

3.2.16 Sett 16

Sett type: **Outlier**

Number of entrances: **1**

Activity level: **Low**

Sett 16 is a single hole outlier sett dug [redacted]. The hole is open and unobstructed, and swept clear of debris. The spoil heap outside the hole is large and there was evidence of small amounts of fresh digging. Badger hair was found within the hole and a fresh badger latrine was found a short distance from the sett. [redacted]

3.2.17 Sett 17

Sett type: **Potential sett**

Number of entrances: **2**

Activity level: **N/A**

Two holes of the correct size and shape for badger amongst a network of rabbit holes. Both tunnels remained over 20cm wide beyond arms' length. No badger evidence was recorded in proximity to holes, however, based on fresh evidence the holes were considered to be in active use by rabbit at the time of survey.

4.0 Discussion

4.1 Badger Activity Survey Results

Classification of the badger activity and sett status at the proposed Birchall Garden Suburb site is complex and current conclusions should be taken as preliminary and potentially subject to change. An ecological study provides only a "snapshot" of the conditions prevailing at the time of survey. As previously described, badgers are capricious animals that move between setts in response to changes in environmental factors and the activity level of the identified setts may fluctuate during the year.

The badger survey completed in April 2017 identified a total of ten confirmed badger setts (Setts 2, 3-7, 10, 11, 15, and 16) and seven potential setts (Setts 1, 8, 9, 12-14, and 17). Eight of the confirmed badger setts were in active use (Setts 2, 3, 4, 5, 7, 10, 15, and 16) with activity levels ranging from low to highly active. Two of the badger setts (Setts 6 and 11) found were inactive / defunct at the time of survey, being either completely blocked with natural debris or partially collapsed. The three badger setts (Setts 3, 4, and 15, previously referred to as Setts A, B, and C respectively) identified in the March 2015 survey by Phillip Parker Associates Ltd were all still present and in active use at the time of survey. Five latrines were also recorded during the survey and their wide distribution across the application site indicates that all or the majority of site is within a badger territory and is likely to be used at least to some extent for foraging, if not for sett building.

Based on evidence gathered during the April 2017 survey and previous data collected by Phillip Parker Associates Ltd, sett 3 is considered to be a main badger sett. The sett is highly active and likely to be permanently occupied. The large quantities of spent bedding are also an indication of frequent occupancy and probable breeding. Sett 4 is considered to be an annex to this main sett based on its proximity and the series of well-worn paths connecting the two setts. Other active setts previously unrecorded include sett 5 which was classified as a subsidiary sett. This sett, due to its proximity to setts 3 and 4, is highly likely to be used by the same clan of badgers and represents an expansion of their sett network [redacted]. The survey also identified a number of active outlier setts (sett 2, 7, and 10) which are likely to be used sporadically throughout the year. Sett 15 was previously classified as a main sett in the 2015 survey with a total of seven active and three disused holes. However, the activity of this sett has decreased markedly and as a result has been reclassified as a subsidiary sett.

[redacted]

[redacted]

5.0 Summary and Conclusion

The badger survey completed in April 2017 identified a total of ten confirmed badger setts (Setts 2, 3-7, 10, 11, 15, and 16), eight of which were in active use (Setts 2, 3, 4, 5, 7, 10, 15, and 16). A further seven potential setts (Setts 1, 8, 9, 12-14, and 17) were also located which had no definitive signs of use by badger. The presence of five latrines, in addition to the setts, indicates that all or the majority of the application site falls within a badger territory. [redacted]

Badger setts which are to be destroyed or disturbed by the proposed development will require a sett interference or disturbance licence granted from Natural England prior to works commencing. In order to obtain such a licence it will be necessary to provide mitigation or compensation measures, and Natural England will typically only issue licences for sett interference if it can be demonstrated that the local badger population can be retained within its current range.

Natural England will typically only issue badger sett Interference or disturbance licences to permit work between the months of July to November, inclusive. This is to prevent dependent cubs from becoming trapped underground and separated from their mothers. This factor needs to be incorporated within any development schedules or timetables.

DRAWING 1

BADGER SURVEY PLAN

EUROPEAN OFFICES

United Kingdom

AYLESBURY
T: +44 (0)1844 337380

BELFAST
T: +44 (0)28 9073 2493

BRADFORD-ON-AVON
T: +44 (0)1225 309400

BRISTOL
T: +44 (0)117 906 4280

CAMBRIDGE
T: + 44 (0)1223 813805

CARDIFF
T: +44 (0)29 2049 1010

CHELMSFORD
T: +44 (0)1245 392170

EDINBURGH
T: +44 (0)131 335 6830

EXETER
T: + 44 (0)1392 490152

GLASGOW
T: +44 (0)141 353 5037

GUILDFORD
T: +44 (0)1483 889800

LEEDS
T: +44 (0)113 258 0650

LONDON
T: +44 (0)203 691 5810

MAIDSTONE
T: +44 (0)1622 609242

MANCHESTER
T: +44 (0)161 872 7564

NEWCASTLE UPON TYNE
T: +44 (0)191 261 1966

NOTTINGHAM
T: +44 (0)115 964 7280

SHEFFIELD
T: +44 (0)114 245 5153

SHREWSBURY
T: +44 (0)1743 23 9250

STAFFORD
T: +44 (0)1785 241755

STIRLING
T: +44 (0)1786 239900

WORCESTER
T: +44 (0)1905 751310

Ireland

DUBLIN
T: + 353 (0)1 296 4667

France

GRENOBLE
T: +33 (0)4 76 70 93 41