



Gladman Developments Ltd.

Land off Swanstree Avenue, Sittingbourne

BADGER SURVEY REPORT

CONFIDENTIAL

September 2021

This document contains information on the location of badger setts and activity. Due to the sensitive nature of these records and the current public awareness, this document should remain confidential for the use of the planning application and should not be made publicly available.

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Rev	Issue Status	Prepared / Date	Approved/Date
-	Draft	HG/AU / 23.08.21	RJS 01.09.21
	Final	AU 28.09.21	

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FIGURE

Figure 1: Badger Survey Plan

1.0 NON-TECHNICAL SUMMARY

- 1.1 A residential development of approximately 135 units is proposed on a site located to the south of Sittingbourne, Kent.
- 1.2 The site predominantly comprised an arable field with intensively cultivated fruit orchards, small areas of species poor semi-improved grassland, treelines and an isolated hedgerow to the north. A fence line and Swanstree Avenue defined the northern boundary of the site.
- 1.3 Field signs identified during Site visits in 2021 confirmed that the Site is likely utilised for foraging and commuting with seven small active latrines were found at the boundaries. No setts were identified within or close to the Site boundary.
- 1.4 The site is not considered to be a primary foraging resource given the variety of suitable surrounding habitats in which badger evidence and setts have been observed. Providing the sensitive design of the landscaping scheme and the strategic retention and enhancement of habitats, the integrity of habitat connectivity will be maintained. The presence of badger is therefore not currently a constraint to the development proposals.
- 1.5 Mitigation measures have been recommended to ensure badgers are not harmed during the construction phase of the development.
- 1.6 Due to the transient nature of badgers, it is recommended that a pre-commencement survey is completed to ensure the mitigation recommendations are reflective of the existing usage of the site at the time of construction.

2.0 INTRODUCTION

- 2.1 The following Badger *Meles meles* Survey Report has been prepared by FPCR Environment and Design Ltd on behalf of Gladman Developments Ltd for land south of Swanstree Avenue, Sittingbourne (central OS Grid Reference TQ91216257), hereby referred to as the Site. This report provides the results of badger surveys undertaken by FPCR Ltd in March to July 2021 (inclusive). Surveys were undertaken in conjunction with other protected species surveys during 2021, allowing for an accurate assessment of the importance of the site to the local badger population during various visits to the site.
- 2.2 An assessment of badger evidence was made in conjunction with potential impacts on this species, which may arise from the proposed development.
- 2.3 The results of the badger surveys have not been included within the FPCR Ecological Appraisal (FPCR, August 2021) due to the sensitive nature of this species and potential effects that could result from releasing badger evidence and sett locations. This document is to be considered confidential and should not be released into the public domain.
- 2.4 A Phase 1 habitat and protected species surveys, including bats, badger, reptiles and dormice were previously undertaken by FPCR in 2014, for a previous application which encompassed the arable fields to the east and south of the site. The red line boundary has been reduced for this new application in 2021 and a walkover survey was undertaken on 11th March to update the baseline information.

Site Location and Context

- 2.5 The 5.9ha site lies on the south-eastern periphery of the town of Sittingbourne, Kent. Arable land surrounds the site to the south and east, with a Local Wildlife Site (LWS) beyond the southern boundary. The northern site boundary is bound by Swanstree Avenue beyond which lies the residential area of Sittingbourne and the A2 road. The site can be accessed via Chilton Manor Farmhouse and shop, which lie immediately to the north-west of the Site off Highsted Road, which separates the site from further residential areas to the west.
- 2.6 The site predominantly comprises a commercial arable field, with intensively managed orchards in the south. The application site is bound predominantly by fencing, with tall mature treelines along the southern and eastern boundaries and a short section of isolated hedgerow in the north. Other small areas of habitat on site included semi-improved grassland, tall herb/ruderal herb, and ephemeral vegetation.

Site Proposals

- 2.7 The proposals are for a residential development of up to 135 units with associated infrastructure and landscaping (*Development Framework Plan 06302-FPCR-ZZ-ZZ-DR-L-0002*). New entry points will be incorporated into the site via Swanstree Avenue along the northern boundary which is marked by a fence line. The majority of treeline extent within the site boundaries will be retained, with provision of approximately 2ha of green infrastructure (GI), to include public open space, orchard trees, play areas, a wildlife pond and additional structural planting (new hedgerows, trees and scrub).

3.0 LEGISLATION

3.1 Badgers are protected under the Protection of Badgers Act 1992¹. This Act is based on the need to protect badgers from baiting and from deliberate harm or injury, and makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempted to do so; and
- To intentionally or recklessly interfere with a sett. Sett interference includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access routes.

3.2 A sett is defined as:

“Any structure or place that displays signs indicating current use by a badger”

3.3 Work that disturbs badgers whilst occupying a sett is illegal without a licence from Natural England; badgers may be disturbed by work near the sett even if there is no direct interference or damage to the sett.

3.4 Guidance from Natural England² suggests that the potential for such disturbance might not be as great as originally assumed, due to the relatively high tolerance level of badgers. Whether disturbance will be caused should take into account the sett characteristics, current usage and proposed extent of works with the need for a licence being assessed on a site-by-site basis.

3.5 Licences only allow works to be carried out between July and November inclusive.

3.6 The law relates only to the places and structures of habitation and the foraging grounds of badgers are not directly protected. The ODPM Circular 06/2005 *Biodiversity and Geological Conservation* does however states that:

“The likelihood of disturbing a badger sett, or adversely affecting badgers’ foraging territory, or links between them, or significantly increasing the likelihood of road or rail casualties amongst badger populations, are capable of being material considerations in planning decisions.”

¹ The Protection of Badgers Act 1992. London: HMSO [Online]. Available from: <http://www.legislation.gov.uk/ukpga/1992/51/contents>

² Natural England 2009. Protection of Badgers Act 1992 Interpretation1 of ‘Disturbance’ in relation to badgers occupying a sett.

4.0 METHODOLOGY

Desk Study

- 4.1 Badger records were requested from Kent and Medway Biological Records Centre (KMBRC).
- 4.2 Further inspection, using colour 1:25 000 OS base maps (www.ordnancesurvey.co.uk) and aerial photographs from Google Earth (www.maps.google.co.uk), was also undertaken in order to provide additional context and identify any features of potential importance for badgers.

Field Surveys

- 4.3 Standard methodology³ was followed during the surveys completed in 2021, where a thorough search for evidence indicating the presence of badgers both on the site and within the immediate proximity (where access permitted), including the identification of:
- Setts: including earth mounds, evidence of bedding and runways between setts;
 - Latrines: often located close to setts, at territory boundaries or adjacent to favoured feeding areas;
 - Prints and paths or trackways;
 - Hairs caught on rough wood or fencing; and
 - Other evidence: including snuffle holes, feeding and playing areas and scratching posts. The identification of these signs on their own does not necessarily provide conclusive evidence of the presence of badgers. A number of such signs need to be seen in conjunction before badgers can be confirmed as being present.
- 4.4 Where setts are found, their status and level of activity is noted. Sett status is broadly categorised as follows:
- *Main sett* – usually continuously used with many signs of activity around, a large number of holes and conspicuous spoil mounds;
 - *Annexe sett* – usually located close to a main sett and connected to it by well used paths. Annexe's may not be continuously occupied;
 - *Subsidiary sett* – lesser used setts comprising a few holes and without associated well-used paths. Subsidiary setts are not continuously occupied; and
 - *Outlier sett* – one or two holes without obvious paths. These are used sporadically.
- 4.5 Level of activity is described as:
- *Well used* – clear of debris, trampled soil mounds and obviously active, with signs of activity such as presence of prints, dislodged guard hairs around the entrances;
 - *Partially used* – some associated debris or plants at the entrance. Could be used with minimal excavation and usually with signs of activity within the vicinity, for example, badger pathways; and
 - *Dis-used* – partially or completely blocked entrances.

³ Cresswell, P., Harris, S. & Jefferies, D.J. 1989. *Surveying Badgers*. The Mammal Society Publication No.9 Mammal Society

Constraints

- 4.6 An attempt to classify the offsite setts has been made based on the number of entrance holes, size of spoil heaps, location, evidence of use and proximity to other setts. It should be noted however, that sett classification is not 'clear cut' and can be difficult to apply in the field, particularly within dense vegetation, and also where no other badger field signs have been identified.

5.0 RESULTS

Desk Study

- 5.1 KMBRC provided two badger records dating from 1999 and 2000. The record from 1999 was located approximately 490 m west of the site boundary, whilst the record from 2000 had a two figure grid reference meaning it was not possible to give an accurate distance from site. It is unknown whether these records are setts, field signs or sightings, however it does indicate that badgers were historically active in the local area.

Field Survey

2014 Field Survey Results

- 5.2 During the FPCR field surveys in 2014 several setts were identified, all of which were outside of the updated 2021 redline boundary. The observations comprised one large main sett and one annex sett identified within arable field margins, approximately 300m east of the Site boundary. Two outlier setts were also recorded, one located 200m to the south on the boundary of Highstead Quarry LWS and one 30m west of the Site boundary, within the orchard close to Chilton Manor Farm buildings. Latrines, pathways, snuffle holes and squeezes were all recorded during the surveys and badgers were observed foraging during the 2014 bat activity surveys.

2021 Field Survey Results

- 5.3 During the initial site walkover on 11th March 2021, one small active latrine and one possible squeeze were found within the Site along the eastern boundary. The squeeze consisted of a dug-out area under a loose wire fence which had formed a gap large enough for badger to use.
- 5.4 The arable fields outside the Site boundary included in the 2014 survey, were also assessed on 11th March 2021 and the annex sett to the east and the outlier sett at Highstead Quarry LWS recorded during the 2014 survey were confirmed as present, along with a number of latrines and a run identified at the field margins. However, no evidence was found of the former outlier sett 30m west of the Site boundary by the farm buildings and was therefore considered disused.
- 5.5 During subsequent site visits from April to July 2021, six more latrines, two droppings and one other squeeze were found within the Site redline boundary. The approximate locations of the 2021 field evidence and the off site badger setts are illustrated on *Figure 1 Badger Survey Plan*.

6.0 DISCUSSION AND RECOMMENDATIONS

Potential Impacts of Development

- 6.1 No setts were identified within the Site or within 30m of the Site boundary. The potential impacts of the proposed residential development to the local badger clans, are discussed in further detail below:
- Loss of small areas of foraging habitat within the area proposed for development;
 - Fragmentation of existing badger foraging habitat during site construction and operation; and
 - Introduction of barriers to the movement of badgers and potential increases in mortality associated with proposed access roads.
- 6.2 Mitigation will focus on ensuring badgers suffer no harm or stress as a result of the development.
- 6.3 The small areas of modified grassland, arable and cultivated orchard areas provide suitable foraging habitat for this species. Field evidence has shown that badgers are active within the Site boundary suggesting that the habitats are used as foraging areas for the local clan.
- 6.4 There are several woodland blocks within the surrounding landscape, including the Highstead Quarries LWS and these are likely to provide more opportunities for foraging and additional badger sett locations. Badger territories can be as small as 30ha but span up to more than 150ha in open areas, where good foraging habitats are sparse. Given the variety of suitable habitats in the wider landscape the habitats associated with the Site are likely to represent only a small proportion of the foraging habitat that is available to the local badger clan. Owing to the position of the site, enclosed by urban areas and major road systems, proposals will not result in any loss of connectivity for badger, especially given the retention and enhancement of the southern and eastern boundaries.
- 6.5 The retention of these boundaries will ensure access to wider foraging areas are maintained, including woodland at Highstead Quarries LWS and to the surrounding arable fields and offsite sett locations.
- 6.6 Due to the transient nature of badgers, it is recommended that a badger survey of the site is completed two months prior to the commencement of works, to ensure no new setts have become established in the interim. If any setts are excavated within close proximity the construction area during this time, disturbance might not be able to be ruled out. In such circumstances, a licence from Natural England may be necessary.

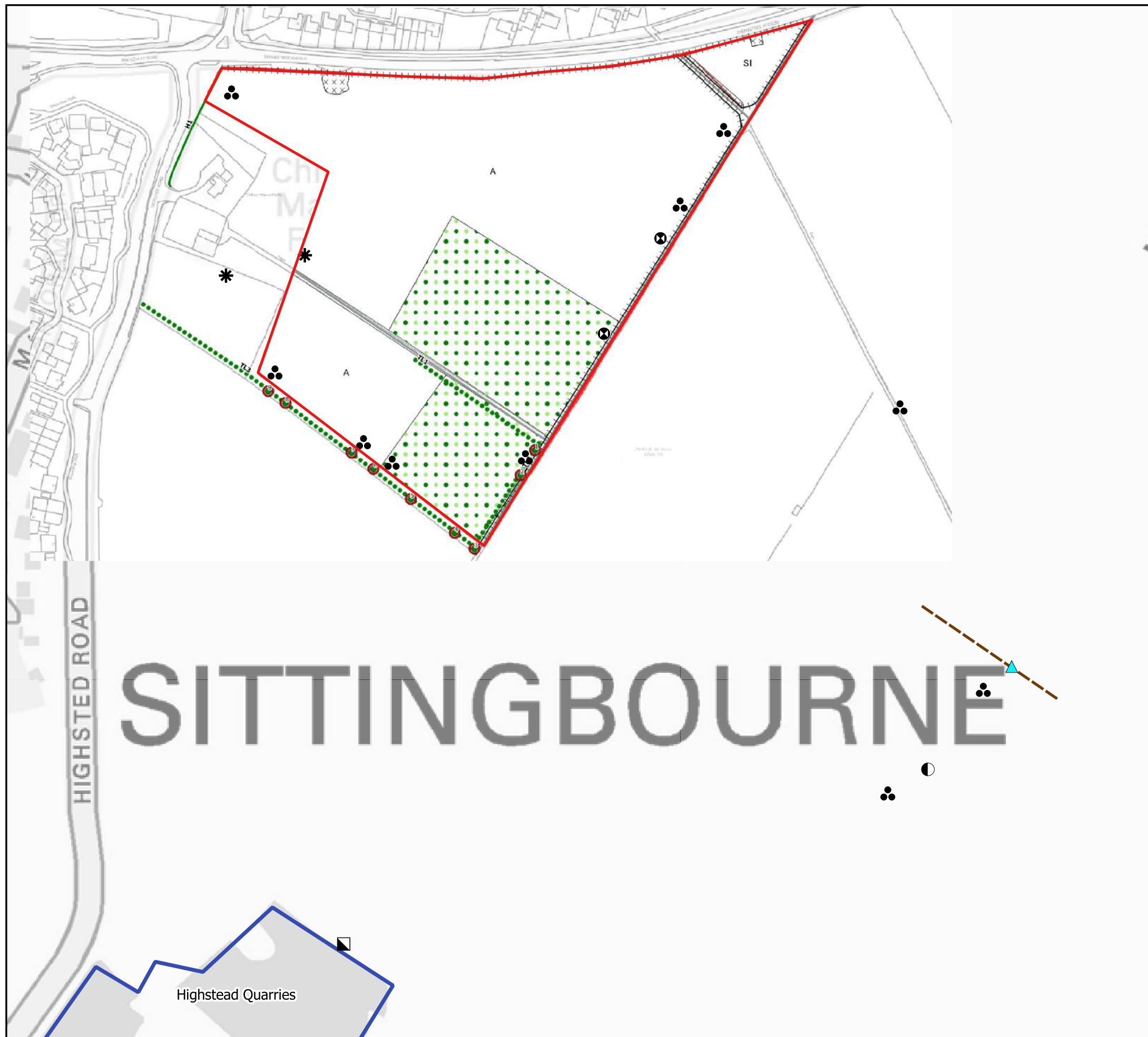
Mitigation Measures

- 6.7 It is considered that there is some risk that badgers or other mammals, may become trapped or harmed during construction from the digging of excavations or materials on site. Precautionary mitigations measures are therefore required during the construction phase of works to ensure that badgers are not harmed (thus maintaining legal compliance), it is recommended that these measures are included in a Construction Environment Management Plan for the Site:
- During construction any pipes greater than 250mm in diameter will be capped if they are left open overnight, thereby preventing badgers from becoming trapped;

- Any pits or trenches that cannot be back-filled will similarly be covered overnight, or left with a suitable means of escape, e.g. a stout timber plank forming a ramp;
- Careful consideration will also be given to the location of topsoil storage mounds that can readily become used by badgers for the creation of new setts;
- During the construction phase, operations shall be restricted to daylight hours as far as practicable in order to minimise the potential for adverse impacts to badger (and other nocturnal and crepuscular wildlife like hedgehogs) through disturbance, and;
- Construction offices, material compounds and security buildings will be located in appropriate locations away from retained habitats in order to reduce the potential for accidental damage to habitats or interruption to regularly used badger runs. All waste materials are to be appropriately stored, in particular domestic waste from construction site welfare units that may attract badgers should be stored in heavy duty bins with lids.

Enhancements

- 6.8 Native species shrub planting at the peripheries of the site, will buffer the surrounding arable fields from the development and provide new foraging and commuting opportunities. A variety of native tree and shrub species that bear nectar, berries and fruit will be used in the landscaping scheme. Such planting will provide year-round foraging opportunities and to increase the invertebrate and fruiting plant diversity, both of which are important as a foraging and commuting resource for badgers, both onsite and in the wider landscape.
- 6.9 Artificial lighting is to be avoided where possible within areas of GI, or otherwise kept to a minimum, for example via the use of low level bollard lighting to light footpaths. These measures should retain GI as areas of suitable unlit foraging/commuting habitat and ensure badgers are not deterred away. Roads/paths adjacent to GI should also not be lit where possible however it may be preferable to install low level directional lights as part of the scheme if it is considered likely that without lighting residents may install inappropriate security lights.
- 6.10 Traffic calming/signage is also recommended where roads bisect boundary planting and grassland habitats which could be used as commuting routes by badgers. As the site is proposed to be residential development with no through road it is not considered that the traffic will be of a significant volume or speed to cause a significant impact on the local population if appropriate calming measures/signage are put in place.
- 6.11 The site's habitats which are retained, created and enhanced will all be subject to sensitive long-term management in accordance with an agreed Management Plan.



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Key

- Site Boundary
- Local Wildlife Site
- Badger signs
- Sett
- Outlier
- Latrine
- Dropping
- Squeeze
- Run
- Badger runs

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Gladman
Land off Swanstree Avenue,
Sittingbourne
BADGER PLAN

scale 1:2400
drawing / figure number **Figure 1**
drawn HG
issue 19/8/2021
rev **6302-E-01**