



REPTILE SURVEY AND MITIGATION STRATEGY REPORT

The Grange, Westergate Street, Woodgate, Arun

On behalf of Smith Simmons & Partners Ltd.

Prepared by	CF
Checked by	GS
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SUMMARY

Lizard Landscape Design and Ecology has been commissioned by Smith Simmons & Partners Ltd. to undertake reptile presence / absence and population class surveys, and devise mitigation across land at The Grange, Westergate Street, Woodgate in Arun (*Grid Reference: SU 94003 04386 – hereafter referred to as ‘the site’*).

The initial survey of the site on 15th October 2020 found habitats suitable to support reptiles within the development footprint and therefore, reptile monitoring surveys were proposed, and seven survey visits were conducted between 15th April – 5th May 2021.

The survey identified a low population of common lizards and a good population of slow worms, based on current guidance population evaluation criteria (Froglife, 1999). Reasonable Avoidance Measures (RAMs) are provided herein to ensure that reptiles are safeguarded throughout proposals, and sufficient habitat is provided during operation, such that reptiles may remain in perpetuity across the site, and all works accord with local and national planning policy legislation.

1.0 INTRODUCTION

- 1.1 Lizard Landscape Design and Ecology has been commissioned to undertake a reptile presence / absence survey across land at The Grange, Westergate Street, Woodgate in Arun – hereafter referred to as ‘the site’.
- 1.2 The Site was subject to a Preliminary Ecological Appraisal undertaken by Lizard Landscape Design and Ecology on 15th October 2021. Due to the presence of suitable reptile habitat on site in the form of ephemeral / short perennial, tall ruderal and scrub, a full reptile survey was recommended to scope in / out the presence of reptiles on site.
- 1.3 The field data was collected by George Sayer (*MCIEEM, MCIEEM, Senior Ecologist; Lizard Landscape Design and Ecology*). The analysis contained in this report was undertaken and prepared by Caleb Fry (*BSc (Hons) ACIEEM, Project Ecologist; Lizard Landscape Design and Ecology*). The report has been reviewed by George Sayer.

Site Information

- 1.4 The site covers an area of c. 0.2ha and consists of an irregular shaped plot. An access track at the south of site connects the site to Lidsey Road to the west. The site contains areas of hardstanding used for car parking and access, as well as buildings associated with the current landowner, used for vehicle maintenance and storage. The north of the site is bounded by a dry ditch and a narrow strip of woodland, directly south lies an area of ephemeral / short perennial vegetation, towards the east of this area tall ruderals proliferate. To the north of sites lies an unmanaged field where rank grasses, scrub and ruderal vegetation proliferate. To the west of site lies existing properties with associated garden.

Surrounding Landscape

- 1.5 The site is located on the eastern edge of Woodgate. The surrounding landscape is comprised of the built mass of Woodgate which lies to the west and south, whereas agricultural fields and associated hedgerows lie to the east and north. A tributary of the River Arun lies c. 320m to the east. A railway line extends east-west c. 10m south of the site. Barnham train station lies c. 1.8km to the east.

Development Proposals

- 1.6 It is understood that proposals are for the removal of the existing structures for the construction of two new residential housing units.

Scope of the Survey

- 1.7 The aim of the reptile survey has been:
- To identify the presence / likely absence of reptiles on site;
 - To provide a population assessment where reptiles are present;
 - To proposed suitable mitigation measures (if reptiles are found to be present).

2.0 LEGISLATION

2.1 All species of UK reptile are listed under Schedule 5 Wildlife and Countryside Act 1981 (as amended). Reptiles are afforded protection under section 9(1) and section 9(5) against intentional or reckless killing or injuring, offering for sale, transport for sale or advertisement of any live or dead reptile. All UK reptile species are also recognised as species of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006, meaning that reptile populations are a material consideration which local authorities must take into account when assessing a planning application.

2.2 Smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* receive additional protection under The Conservation of Habitats and Species Regulations 2017 (as amended) which makes it an offence to kill, injure, capture or disturb them; damage or destroy their habitat; or to possess or trade in them.

Licensing

2.3 If a site is found to support smooth snake or sand lizard and disturbance or removal or habitat is unavoidable, a licence will be required from Natural England to allow work to proceed.

2.4 A licence must show that there is no satisfactory alternative to the works proposed, and that they are for reasons of health and safety or overriding reasons of public interest. Licenses are only issued once planning permission has been granted.

2.5 There is no formal licensing requirement for sites which support only common UK reptile species (slow worm *Anguis fragilis*, common lizard *Zootoca vulgaris*, adder *Vipera berus* or grass snake *Natrix helvetica*).

3.0 METHODOLOGY

3.1 Field Survey

- 3.1.1 15 no. artificial reptile refugia (*roofing felt; 1.0 x 0.50 m*) were laid out across the site on 31st March 2021 and allowed to settle (or 'bed in') for 14 days prior to commencement of the survey.
- 3.1.2 Refugia were installed at a density of approximately 75 refugia per hectare, exceeding the minimum survey density recommended for presence / absence surveys (Froglife, 1999). The locations of artificial reptile refugia are detailed within *Figure No. 01*.
- 3.1.3 07 no. site visits were conducted, where the number, species, age and sex of the reptile's present were recorded and repeated walkovers of the site were used to search for active reptiles. The survey methodology was consistent with best practice guidance (Froglife, 1999)(Natural England, 2011).
- 3.1.4 Surveys were undertaken during recommended times (*08:00–11:00 and 16:00–18:30*) and within suitable weather conditions (*e.g., temperatures 9–18°C*) and during peak survey months (April-May) when reptiles are basking for longer periods and hence, more readily surveyable.

3.2 Population Assessment

- 3.2.1 Reptile populations were assessed in accordance with population level criteria as stated for the Key Reptile Site Register (Froglife, 1999). This system classifies populations of individual reptile species into three population categories assessing the importance of the population. These categories are based on the total number of adult animals observed during individual survey occasions and upon a survey density of 10/Ha.

Table No. 01 – Population Size Assessment

Species	Low Population	Good Population	Exceptional Population
Slow Worm	<5	5-20	>20
Common Lizard	<5	5-20	>20
Grass Snake	<5	5-10	>10
Adder	<5	5-10	>10

3.3 Details of Surveyors

- 3.3.1 The reptile survey was undertaken by George Sayer, MCIEEM, Senior Ecologist, whom has 5 years experience undertaking both reptile surveys and reptile translocation:

3.4 Survey Constraints and Limitations

- 3.4.1 No constraints were encountered during the survey period which would cast doubt on these results. Full access was available to all areas of the site and all refugia remained in place throughout the survey period.
- 3.4.2 Reptile surveys are unlikely to accurately determine the true population of reptiles across a site, due to natural variability in the individual presence of reptiles, and inherent imperfections with standard detection rates. However, these are constraints acknowledged by current best practice guidance (Froglife, 1999)(Natural England, 2011) and do not cast doubt on the validity of the results, or population estimates from this assessment. The density of survey refugia (75/Ha) was high and well above the minimum required within the above guidance; as such, it is highly unlikely that species were missed or populations underestimated.

4.0 RESULTS

- 4.1 A low population of common lizards and a good population of slow worms were recorded throughout the monitoring period. The peak count for adult common lizards was 2, recorded on 15th April 2021, and the peak count for adult slow worms was 5, recorded 19th April 2021.
- 4.2 All surveys were carried out in suitable weather conditions and time of day during the peak survey season. A summary of each visit is detailed below:

Table No. 2 – Summary of Results

Survey	Date of Visit	Time	Temp.	Weather Conditions	Results
1	12.04.21	10:45	9°C	Light Cloud	2 adult common lizards, 2 adult slow worms, 3 juvenile slow worms
2	16.09.21	16:00	14°C	Clear and sunny	No reptiles recorded
3	19.04.21	17:00	14°C	Clear and sunny	5 adult slow worms, 2 juvenile slow worms
4	22.04.21	11:00	11°C	Clear and sunny	4 adult slow worms, 2 juvenile slow worms
5	23.04.21	11:00	14°C	Clear and Sunny	1 adult common lizard, 4 adult slow worms, 2 juvenile slow worms
6	26.04.21	11:00	11°C	Clear and Sunny	1 adult slow worm, 5 juvenile slow worms
7	05.05.21	10:00	11°C	Light Cloud and Wind	2 adult slow worms, 3 juvenile slow worms and 1 common lizard

- 4.3 The results indicate a 'low' population of common lizards are on site, and a 'good' population of slow worms are present (Froglife, 1999). Given the density of refugia on site (75/Ha), there is no reason to believe that the population on site is any higher than that found during the survey period.
- 4.4 Reptiles were spread through the northern section of the site, with a refugia to the north-east consistently supporting several slow worms. Given the small area of the site and its relatively similar habitat, the entirety of the area is considered to support reptiles.

5.0 EVALUATION AND RECOMMENDATIONS

5.1 Potential Impacts

- 5.1 The site supports a low population of common lizard and a good population of slow worms, in the absence of mitigation there is a risk that development would result in the incidental killing or injury of reptiles, which would constitute an offence under *The Wildlife and Countryside Act 1981 (as amended)* and result in direct habitat loss through land-take, as well as reduction in the quality of the retained habitat. There would also be the potential for indirect impact to occur, such as through increased disturbance, refuse accumulation, persecution, collection and predation (Natural England, 2011).

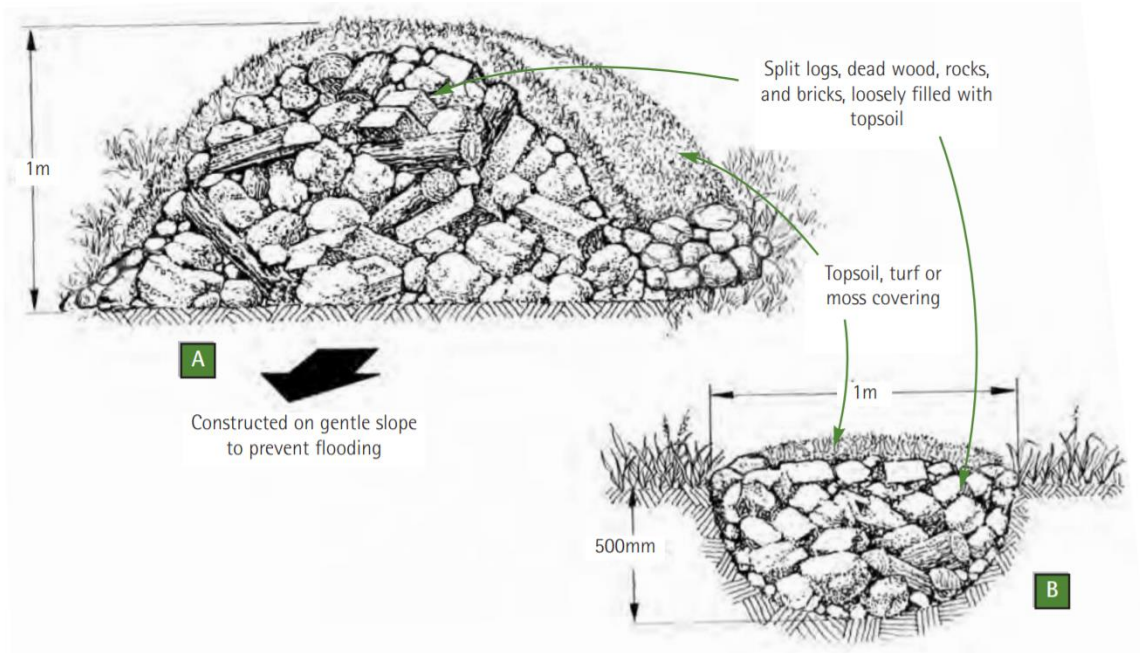
5.2 Avoidance, Mitigation and Compensation

- 5.2.1 Due to the numbers of reptiles recorded on site a series of Reasonable Avoidance Measures (RAM's) are considered appropriate to mitigate against any potential harm.
- 5.2.2 The following Reasonable Avoidance Measures should be implemented during site clearance and construction to avoid any potential harm to any reptile species present:
- Vegetation within the main body of the site should be cut to no less than 150mm above ground level November – February inclusive to avoid the main bird nesting season, and when reptiles are below ground and out of the way of danger.
 - All cut vegetation shall be removed from site to prevent the formation of compost piles which could serve to attract individuals,
 - All ground works and removal of any potential refugia or hibernation features (*such as log piles, tree/shrub stumps, brash or rubble*) should be removed during the summer months (April – September inclusive) when reptiles are active and able to move away from harm.
 - All contractors should be given a toolbox talk to make them aware of the potential presence of reptiles in the locality.
 - A hibernacula will be installed towards the north eastern portion of the site.
 - The site should be cleared from the south west corner towards the north east corner (April – September inclusive) to encourage reptiles

to naturally disperse into this retained habitat. This may need several successive cuts as the ground is uneven, followed by a destructive search in which the top soil within the development footprints will be carefully removed, conducted under ecological watching brief by a suitability qualified ecologist.

- The retained habitat should be fenced off from development using post and rail fencing to discourage anthropic disturbance and intrusion into this area.
- Any vegetation regrowth on site during the construction phase will be removed through regular strimming to ground level, in order to prevent reptiles from recolonising the area.

5.2.3 An area of the site will be retained for the benefit of reptiles (see Figure No. 01 – Reptile Mitigation Plan), located towards the north east corner of the site as this area can be left undisturbed and fenced off using post and rail fencing to discourage disturbance and anthropic intrusion into this area, and any new occupants should be made aware of the presence of this area and the need to leave it in situ. The area will consist of retained ephemeral, ruderal and scrub vegetation. A small hibernacula will be provided to act as mitigation for the loss of reptile habitat, and potentially increase the carrying capacity of the site. This will entail a small dug hole, backfilled with rocks and logs, protruding slightly above ground level and covered with a layer of topsoil. This could be completed at the same time as topsoil removal, utilising the cleared materials. A 1m² surface area hole will be excavated to a depth of 0.5m and lined with sand and gravel to improve drainage. Then hole will be loosely back filled with stone, rock and logs and branches, with brash over the top of the pile. Finally, soil and turf will be replaced over the top of the pile to form an insulating layer. An illustration taken from the *Great Crested Newt Conservation Handbook* (Langton *et al*, 2001) is provided below for reference:



6.0 CONCLUSIONS

- 6.1 Targeted reptile surveys at the site identified a low population of common lizards, and a good population of slow worms, based on current guidance population evaluation criteria (Froglife, 1999).
- 6.2 The implementation of Reasonable Avoidance Measures (RAMs) provided herein will ensure that reptiles are safeguarded throughout the construction process, and habitat opportunities will be provided during the operational phase of development, to ensure that the safeguarded reptiles can persist in perpetuity, and that works will accord with local and national wildlife legislation.

7.0 REFERENCES

Froglife. (1999). *Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation*. Froglife Advice Sheet 10. Froglife: Halesworth

Herpetofauna Groups Of Britain And Ireland. (1998). *Evaluating local mitigation/translocation programmes: Maintaining Best Practice and lawful standards*. HGBI advisory notes for Amphibian and Reptile Groups (ARGs). HGBI, c/o Froglife: Halesworth.

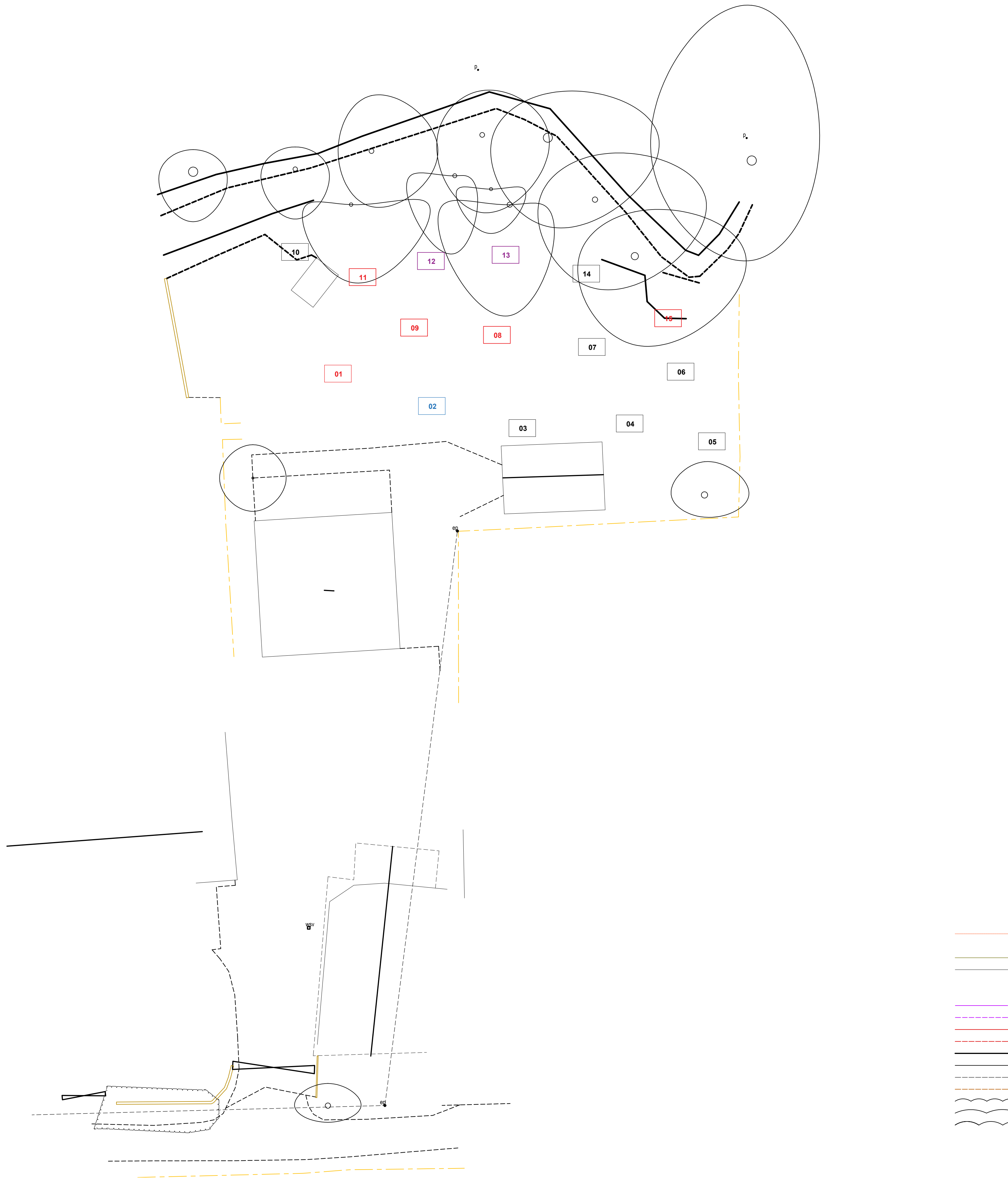
Natural England. (2011). Technical Information Note TIN102. Reptile Mitigation Guidelines. Natural England, 1 East Parade, Sheffield, S1 2ET. Available online:

https://www.whatdotheyknow.com/request/257019/response/637723/attach/4/Reptile%20Mitigation%20Guidelines%201st%20Edition.pdf?cookie_passthrou gh=1 [last accessed 05/05/2021]

Joint Nature Conservation Committee (1998) *Herpetofauna Worker's Manual* (Gent, T. and Gibson, S. eds) JNCC: Peterborough

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Figure No. 01 – Reptile Survey Plan



Legend

- T02** Location of Artificial Reptile Refugia.
- T02** Location of Artificial Reptile Refugia - Common Lizard Recorded.
- T02** Location of Artificial Reptile Refugia - Slow Worm Recorded.
- T02** Location of Artificial Reptile Refugia - Slow Worm and Common Lizard Recorded.

Notes:

- Drawing to be read in colour.
- For further details refer to:
LLD2126-ECCO-REP-002 - Reptile Survey and Mitigation Strategy Report.

Planning Issue

Rev	Description	Date	Initials
00	Planning Issue	07.05.21	GS



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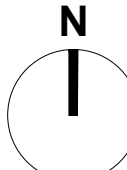
Client
HD Developments
Project Title and Location
The Grange
Westergate Street, Westergate

Drawing Title
Reptile Survey Results
Figure No. 01

Scale	Drawn	Approved	Date
1:200@A1	GS	CF	07.05.21

Drawing No	Revision
LLD2126-ECO-FIG-001	00

Reptile Survey Plan
The Grange, Westergate Street, Westergate



0 1 2.5 5 10 m
Scale 1:200

Figure No. 02 – Reptile Mitigation Plan



Legend

 Proposed Reptile Receptor Area.

Notes:

1. Drawing to be read in colour.

2. For further details refer to:
LLD2126-ECCO-REP-002 - Reptile Survey and Mitigation Strategy Report;

A. BINS AND BIKES WITHIN
GARAGES - MIN. 6x6m INTERNALLY

B. TURNING FOR FIRE APPLIANCE

C. BIN COLLECTION POINT

Planning Issue

Rev	Description	Date	Initials
00	Planning Issue	07.05.21	GS



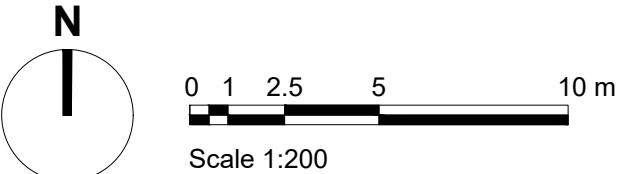
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Client:
HD Developments
Project Title and Location
The Grange
Westergate Street, Westergate

Drawing Title
Reptile Mitigation Plan
Figure No. 02

Scale 1:200@A1	Drawn GS	Approved CF	Date 07.05.21
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Drawing No LLD2126-ECO-FIG-002	Revision 00
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Reptile Mitigation Plan
The Grange, Westergate Street, Westergate