

Reptile Mitigation Strategy

June 2025

**Land off Watmore Lane,
Winnersh**

Prepared by
CSA Environmental

On behalf of
Taylor Wimpey West London

Report No: CSA/7168/02

This report may contain sensitive ecological information. It is the responsibility of the Local Authority to determine if this should be made publicly available.

Report Reference	Date	Revision	Prepared by	Approved by	Comments
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1.0 INTRODUCTION

- 1.1 This Reptile Mitigation Strategy has been prepared by CSA Environmental on behalf of Taylor Wimpey West London. It sets out a mitigation strategy with respect to reptile species in the context of proposed development at Land off Watmore Lane, Winnersh (hereafter referred to as 'the Site').
- 1.2 Taylor Wimpey West London have submitted an application for a non-material amendment under Section 96A of the Town and Country Planning Act 1990, to alter the wording of planning conditions attached to the approved application 230208 to introduce phasing into the outline planning permission. This application was approved on 7 April 2025 (reference: 250640). This report will be submitted as part of an application to discharge Condition 16 for the Site as a whole. While this report refers to the two phases as appropriate, it considers the reptile mitigation strategy for the Site as a whole (Phases 1 and 2 combined).
- 1.3 The outline planning application (230208) was supported by ecological survey work and assessments undertaken by CSA Environmental between 2017 and 2022, which included an Ecological Impact Assessment (EclA) (report reference: CSA/1668/11) and targeted survey work for habitats and protected species.
- 1.4 This report has been produced to address Condition 16 of the planning permission, which reads as follows:

Prior to the commencement of development, a reptile mitigation strategy shall be submitted to and approved in writing by the Local Planning Authority. Each phase of the development shall be carried out fully in accordance with the relevant part of the approved Reptile Mitigation Strategy thereafter.

- 1.5 This mitigation strategy aims to:
 - Summarise the baseline ecological conditions at the Site with respect to reptile species.
 - Identify the potential adverse effects of the proposed development activities in the absence of impact avoidance or mitigation measures.
 - Set out avoidance and mitigation measures required protect reptiles from harm during development works and ensure that sufficient quality and quantity of suitable habitat is provided to accommodate the reptile population post-development.
 - Identify appropriate monitoring measures to ensure effective implementation of impact avoidance and mitigation measures.

2.0 LEGISLATIVE CONTEXT

- 2.1 Domestic legislation relating to wildlife and biodiversity includes the following statutes:
- The Wildlife and Countryside Act 1981 (as amended)
 - The Conservation of Habitats and Species Regulations 2010 (as amended)
 - The Natural Environment and Rural Communities (NERC) Act 2006
- 2.2 There are six reptile species native to the UK; the slow-worm *Anguis fragilis*, common lizard *Zootoca vivipara*, grass snake *Natrix natrix* and adder *Vipera berus* (the widespread reptile species); as well as the smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* (the rare reptile species largely restricted to the southern counties of the UK). It is considered that only slow-worm are present at the Site in question, based on reptile surveys carried out to date.
- 2.3 All six native reptile species are listed under Schedule 5 of the Wildlife and Countryside Act 1981. Under Section 9(1) of the Act, it is an offence to intentionally kill or injure any animal listed under Schedule 5, or 9(4)(a) to intentionally or recklessly damage, destroy or 9(4)(c) obstruct a place of shelter or protection used by such an animal. Furthermore, it is an offence under Section 9(4)(b) to intentionally or recklessly disturb such an animal whilst occupying a place of shelter. However, the Act repeals all but the protection against killing and injury afforded by Section 9(1) in the case of the four widespread species.
- 2.4 Section 40(1) of the Natural Environment and Rural Communities Act 2006 places a duty on all public authorities (including Local Planning Authorities) to have regard to the purpose of conserving biodiversity. All six native reptile species are adopted as species of principle importance for the conservation of biodiversity in England under the Act.

3.0 BACKGROUND INFORMATION

Site Description

- 3.1 Phase 1 of the Site consists of the northern part of a large, modified grassland field separated into two sections under different management at the time of survey. The northern section of the field (F1) exhibited tall species-poor grassland vegetation dominated by fast-growing grasses and tall ruderal species with limited broadleaved herbs. This part of the field is subject to lower intensity management, allowing a taller sward height to develop alongside undesirable species. Within the western part of this section of the field, six individual pedunculate oak *Quercus robur* trees are present within the field area.
- 3.2 Phase 2 of the Site consists of the southern part of a large, modified grassland field which exhibited grassland of a consistently short, intensively managed sward length. A low species diversity is present with few tall ruderal species, although occasional stands of common nettle *Urtica dioica* are present. Longer grassland margins are present at the perimeter of the field at hedgerow and dense scrub edges. Habitats at the Site are illustrated on the Habitats Plan in Appendix A.

Off-site Habitats

- 3.3 Off-site to the north and west are residential areas consisting of dwellings, gardens and associated infrastructure. Off-site to the south are agricultural grassland fields between the Site and the M4 motorway. A Special Educational Needs and Disabilities (SEND) school has recently been built within this off-site area to the south. The Emm Brook corridor extends off-site to the north-east and south-east forming a distinct corridor, linking the Site with further off-site agricultural grassland and cropland fields to the south and east.

Proposed Development Activities

- 3.4 The Site was granted outline planning permission at appeal in March 2024 (appeal reference: APP/X0360/W/23/3331651), for the construction of up to 234 homes with all matters reserved except for an access from Maidensfield. The development proposals will now be split into two separate phases. Together, in addition to development parcels and associated infrastructure, these phases include for a wide corridor of open space along the Site's eastern boundary, which will buffer the Emm Brook and include a range of diverse habitats such as wildflower meadows, dense thickets, tree planting, wetland swales and drainage basins.

4.0 BASELINE CONDITIONS AND POTENTIAL EFFECTS

Field Surveys

- 4.1 For the purposes of this report, reptile survey results are reported for the entire outline application area (Phases 1 and 2 combined).
- 4.2 Reptile presence/absence surveys have been undertaken at the outline application site area in 2017, 2021 and 2024. These surveys have identified a population of slow-worm on-site utilising the longer grassland section of the field to the north (within Phase 1), longer grassland margins and scrub across the remainder of the field and boundary scrub vegetation (within both phases). Sub-adult and newborn slow-worm have been recorded during each survey year, indicating that a breeding population is present. The following peak adult counts were identified on each occasion:
- 2017: 8 adults
 - 2021: 9 adults
 - 2024: 21 adults
- 4.3 In 2024, slow-worm were recorded in all five 'survey areas' (see areas A-E on the Reptile Survey Plan in Appendix B). Full survey results from the 2024 survey period are provided in Appendix C. A total of 100 artificial refugia were placed around the Site on 17 June 2024 in areas of suitable habitat. Refugia comprised individual 1m x 0.5m sections of roofing felt, laid out at approximately 10m intervals where possible. The refugia remained on-site for a two-week period prior to the commencement of surveys to 'bed in'. Seven survey visits were carried out between 02 July 2024 and 15 August 2024.
- 4.4 The primary aim of the reptile survey was to establish the presence or likely absence of widespread reptile species within the survey area, rather than to estimate abundance or population size. An approximation of population size for each species identified was nonetheless carried out to guide mitigation proposals, using the following three available published methods: HGBI (1998), Froglife (1999), and Natural England (2011 [now rescinded]). These three approaches vary in their application, assumptions and limitations, and therefore outputs were calculated for all three methods for comparison.
- 4.5 The Site measures c. 11.4ha in size and suitable reptile habitat present at the time of survey was within the northern, less frequently managed, grassland section and along the perimeter of the remainder of the field where longer grassland margins meet hedgerow bases and boundary scrub. The central field area to the south consists of short, managed grassland which is considered to hold limited suitability for reptile species given the absence of structural diversity and cover. The suitable reptile

habitat on-site is broadly considered to equate to approximately 3ha in size. Within this area, 100 refugia were used to provide a density of c. 33 refugia per hectare.

- 4.6 Whilst meaningful population class size estimates are difficult to make, using the three available methods, the peak 2024 survey count of 21 adult slow-worm equates to a 'low' population (calculated as 7 slow-worm per hectare following HGBI guidelines for low population of <50 per hectare), 'medium' population (calculated as 7 slow-worm per hectare following Froglife guidelines for medium population of 5-20 per hectare) and a 'large' population (calculated as 63 slow-worm per hectare following rescinded Natural England guidelines for a large population of >40 per hectare).
- 4.7 The slow-worm population at the Site is well within the bracket for a 'low' population following HGBI guidelines. The on-site population is only just within the bracket for a 'medium' population following Froglife guidelines. With consideration to both the HGBI and Froglife metrics, which broadly follow a similar peak count and population size class estimate, the slow-worm population on-site is considered to be a 'low' population size class.

Potential Development Effects

- 4.8 Site preparation works will include the removal of existing habitats which are known to support the slow-worm population, including grassland and scrub vegetation. In the absence of mitigation, these works could result in the killing or injury of individual reptiles. This would constitute an offence under the Wildlife and Countryside Act 1981 (as amended).

5.0 CAPTURE, EXCLUSION AND TRANSLOCATION

- 5.1 In order to mitigate the potential impacts of killing and injury of reptile species, a programme of capture, exclusion and translocation will be undertaken to remove reptiles from the developable areas of the Site ahead of site preparation works. Captured reptiles will be translocated to an on-site receptor area to maintain a viable population on-site to re-colonise the landscaped areas which will provide suitable habitats once the development has been completed.
- 5.2 The list below provides a summary of the proposed mitigation works, with further details of each of the elements described in the following sections:
- 1) Preliminary vegetation clearance along the route of reptile exclusion fencing and marking out of proposed fence lines.
 - 2) Installation of perimeter and internal drift fencing.
 - 3) Setting out of artificial reptile refugia.
 - 4) Capture of reptile species for a minimum of 30 consecutive days and relocation of reptiles to the agreed receptor area on-site.
 - 5) Removal of internal drift fencing and destructive searches of remaining suitable habitats within the exclusion zone.
 - 6) Maintenance of perimeter exclusion fencing throughout the construction phase, monitored by quarterly ecologist site checks.
 - 7) Removal of perimeter exclusion fencing at the end of the construction period.

Preliminary Vegetation Clearance

- 5.3 Prior to the installation of the exclusion fencing around the perimeter of the Site, vegetation management will be undertaken outside of the bird nesting season (March to August inclusive) if possible. If undertaken during the nesting season it will be preceded by a nesting bird check by a suitably qualified ecologist. Clearance will only be undertaken once the absence of active nests is confirmed.
- 5.4 Scrub and grassland vegetation, where present along the route of the fence line, will be reduced to a height of no lower than c. 300mm under direct ecological supervision to ensure the protection of any reptiles that may be present at or below ground level.

Exclusion Fencing

Specification

- 5.5 Construction of the proposed development will take a number of years, therefore the perimeter exclusion fencing will need to remain in-situ across multiple, sequential reptile active seasons. Semi-permanent exclusion fencing will therefore be used, due to its increased durability.

- 5.6 To aid the translocation process several stretches of temporary drift fencing will be installed internally to compartmentalise the Site. This will be removed once the translocation process has been completed.
- 5.7 The location of fencing is illustrated on separate drawings for each phase of the development, provided on the Reptile Mitigation Strategy Plans (CSA/7168/207 and 208, Appendices D and E). Fencing is proposed to surround the Phase 1 and Phase 2 developable areas to prevent any reptiles re-entering the construction site once the translocation exercise is completed.

Installation and Implementation

- 5.8 Fencing installation should be undertaken by an experienced contractor with an understanding of the specifications for reptile exclusion fencing.
- 5.9 The reptile exclusion fencing will surround the entirety of each phase with an access point in the north-west of Phase 1 for construction traffic where returns along the fence will be installed and habitats degraded and managed to prevent reptiles accessing this area. At the point where the Phase 2 proposals commence, a second access point will be created along the main spine road connection point between Phases 1 and 2, with return sections of fencing created here also.
- 5.10 It is essential that the perimeter fence is maintained in good condition throughout the construction period to ensure reptiles do not regain access to the construction area. Daily checks should be undertaken by site operatives. Quarterly compliance checks will be undertaken where an ecologist will walk the fence line to check it is in good condition and confirm that the mitigation strategy is being complied with. If any repair works are required, these will be done at the earliest opportunity.

Removal

- 5.11 The temporary internal fencing that compartmentalises the Site will be removed following the completion of the translocation exercise under direct ecological supervision.
- 5.12 The perimeter reptile exclusion fencing will be retained in-situ for the duration of the construction works. Following completion of all construction activities, exclusion fencing will be removed under direct ecological supervision to allow landscaped areas within the Site to be recolonised. Where building plots are completed in groups, sections of reptile fencing may be removed in stages where there is no risk of construction-related impacts to any reptiles present.

Artificial Refugia

- 5.13 In order to aid the capture of reptiles, artificial refugia will be distributed throughout suitable on-site habitats. Artificial refugia aid the efficiency

and success of searches for reptiles by creating favourable conditions for animals to bask and shelter.

- 5.14 Artificial refugia will consist of sections of roofing felt measuring c. 0.5m². Refugia will be installed along the exclusion fence lines and within areas of suitable habitats. Artificial refugia will be distributed at least 2 weeks prior to the commencement of the translocation exercise to allow time for 'bedding in'.

Capture and Translocation

- 5.15 The capture of reptiles is limited to the reptile active season, which is generally considered to be from March through to mid-October, subject to weather conditions.
- 5.16 HGBI Guidelines gives a recommended capture effort of 60 suitable days to clear a site with a low population of reptiles. However, given the low numbers of individuals recorded and large areas of the Site that are of limited suitability (central southern field areas), it is considered that a minimum 30 day capture effort is appropriate in this situation. Despite the lower minimum capture effort proposed, the exercise will continue until five consecutive days of nil-captures/sightings have been made under suitable weather conditions.
- 5.17 Where suitable weather conditions are available, a daily site walkover will be undertaken. A visual search for reptiles will be made by an experienced reptile surveyor, who will carefully check each of the artificial refugia.
- 5.18 All reptiles encountered will be carefully caught by hand and transferred to an appropriately ventilated container. Care will be taken to ensure the container is not left for extended periods in the sun, or otherwise subject to thermal stress or excessive vibration.
- 5.19 Once caught, reptiles will be transported as soon as possible to the receptor area, where they will be released into suitable habitat.
- 5.20 Detailed records will be maintained of the number, species and locations of all reptiles translocated on a daily basis. This data will be kept as a record, as well as to aid in the targeting of any measures to increase the rate of capture as described above.
- 5.21 As the capture and movement of reptiles progresses, a range of measures may be used to increase capture rates. These may include:
- Increasing the number of artificial refugia in areas which are yielding the most reptile captures.
 - Gradually degrading areas of suitable vegetation and materials used for cover by reptiles, thereby encouraging the use of artificial refugia.

- Where appropriate, selective destructive searching of features such as debris piles will be undertaken towards the end of the exercise to capture any residual individuals.
- 5.22 Following the completion of the translocation exercise, a destructive search will be undertaken whereby all remaining suitable habitats within the exclusion zone will be degraded to ground level under ecological supervision. This will include careful dismantling of potential refugia within the Site such as vegetation and debris piles. Any reptiles discovered during this process will be relocated to the receptor area.

Receptor Area

- 5.23 The receptor area is located in the south-east corner of the outline application area (as shown in Appendices D and E), located at the eastern edge of the Phase 2 area. The receptor area consists of a linear section of existing grassland habitat which runs parallel to the Emm Brook. The receptor area has been chosen as it provides connectivity along the brook corridor which extends off-site to the south into further suitable grassland habitats within adjacent fields. The receptor area is situated within a part of the Phase 2 area that will become a wide, open space area that will contain a range of diverse habitat types post-development. Once the construction phase is completed, the receptor area exclusion fencing will be removed, allowing reptiles access to these newly created open space habitats.

Preparation and Management

- 5.24 The existing grassland habitat will be retained and subject to a reduced management regime to allow a longer, tussocky grassland sward to develop, grading into existing scrub habitats along the edge of the Emm Brook. The grassland will be managed through strimming in a directional manner to a height of no lower than 150mm.
- 5.25 Two hibernacula and two log piles will be created within the receptor area prior to the translocation exercise commencing. Figure 1 below provides an illustration of a reptile hibernaculum design.

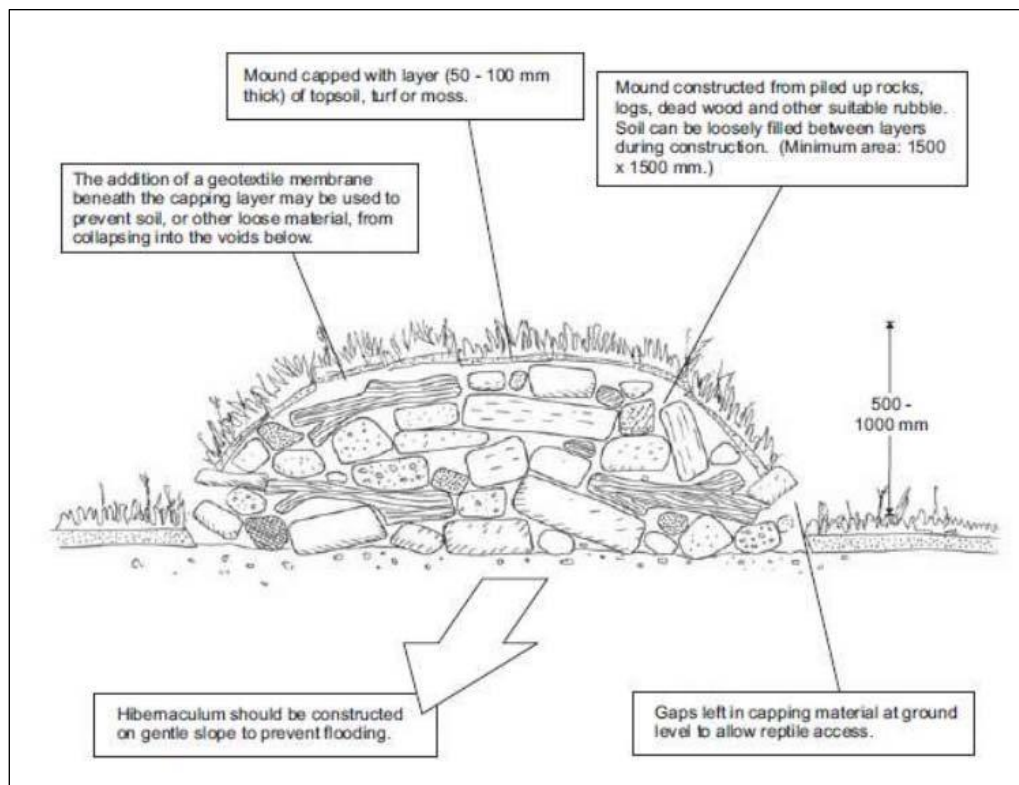


Figure 1. Reptile hibernacula design (reproduced from Highways Agency, 2005).

Monitoring

- 5.26 As described above, quarterly compliance checks will be undertaken through the construction phase of development to check the reptile fence is in good condition and mitigation measures are adhered to. These checks will include both the Phase 1 and 2 fence lines and the receptor area to the south-east.
- 5.27 In order to monitor the success of the species translocation, a scheme of post-development monitoring will take place.
- 5.28 Monitoring surveys will be undertaken within the receptor area and areas of wildlife enhancement (e.g. adjacent established habitats such as wildflower meadows and drainage features). Monitoring will comprise seven survey visits per year, undertaken seasonally and following methodology as per good practice survey guidelines, in years +1, +3 and +5 post-translocation.
- 5.29 Results of monitoring survey will be submitted to Wokingham Borough Council upon completion, and otherwise be made freely available to interested parties. The results of surveys will also be used to direct, where necessary, any remedial actions or improvements to the on-site habitat management actions, as set out within the Landscape and Ecology Management Plan.

6.0 REFERENCES

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

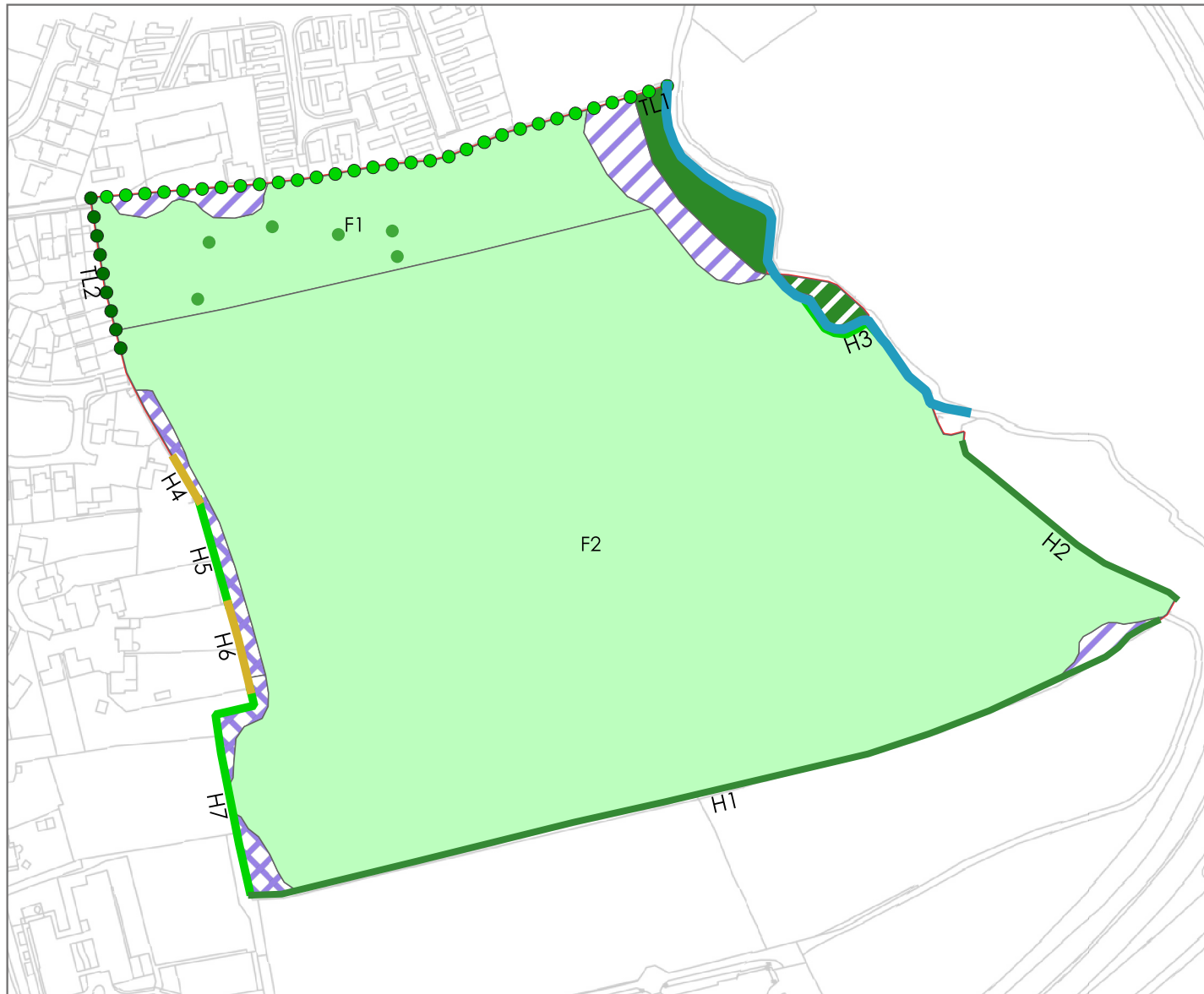
Herpetofauna Groups of Britain and Ireland (HGBI), 1998. *Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards*. HGBI Advisory Notes for Amphibian and Reptile Groups (ARGs). Halesworth: HGBI, c/o Froglife.

Highways Agency, 2005. *Design Manual for Roads and Bridges. Volume 10 Environmental Design and Management. Section 4 The Good Roads Guide: Nature Conservation. Part 7. Nature Conservation Advice in Relation to Reptiles and Roads*.

Natural England, 2011. *Reptile Mitigation Guidelines*. Natural England Technical Information Note TIN102. York: Natural England.

Appendix A

Habitats Plan
(CSA/7168/108)



- Site boundary
- Modified grassland
- Blackthorn scrub
- Bramble scrub
- Broadleaved deciduous woodland
- Other woodland; broadleaved
- Native hedgerows with trees
- Native hedgerows
- Ornamental hedgerows
- Line of trees
- Line of trees (ecologically valuable)
- Emm Brook
- Rural tree

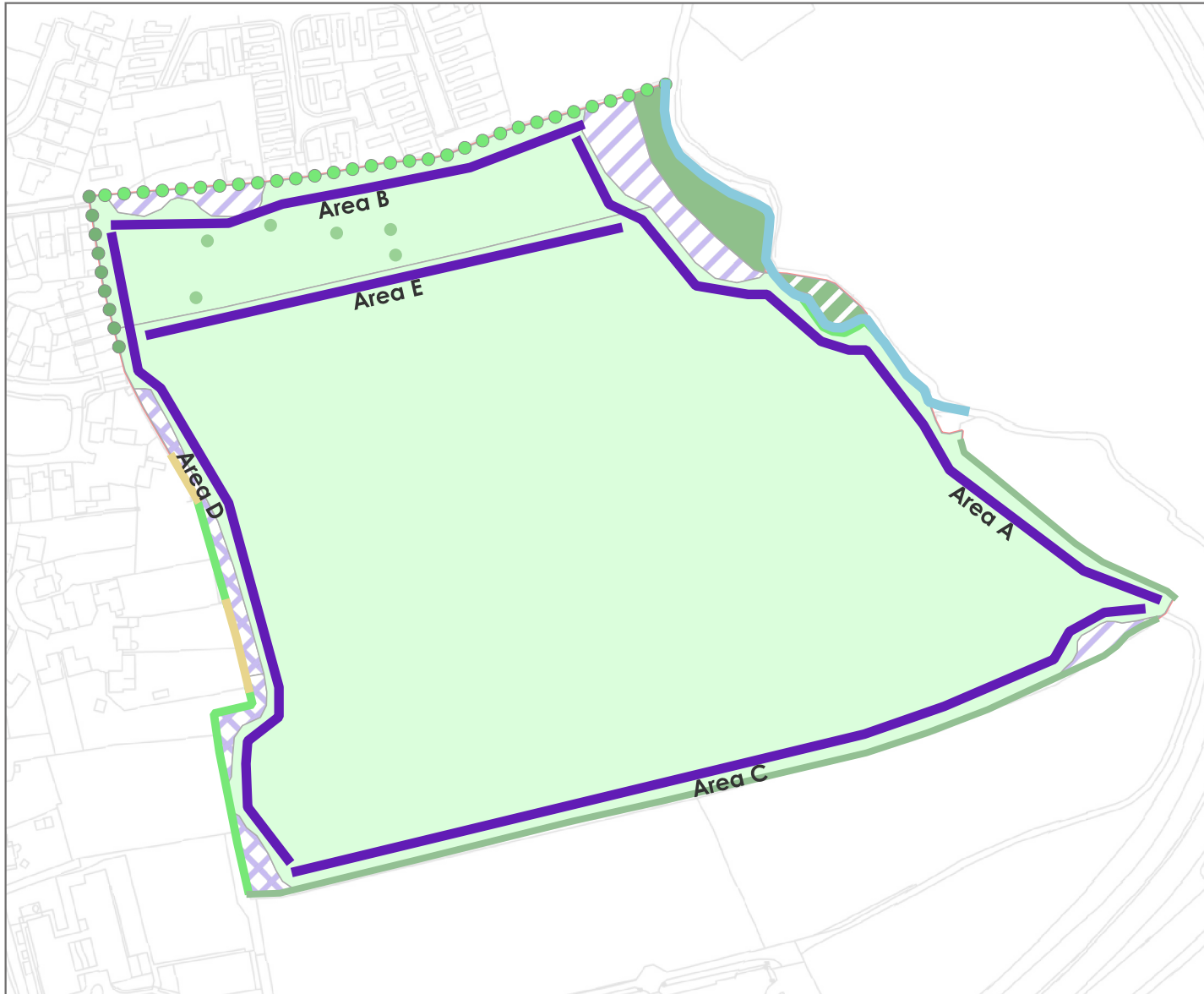
0 50 100 m



Project	Maidensfield, Winnersh	Date	August 2024	Drawing No.	CSA/7168/108
Drawing Title	Habitats Plan	Scale	Refer to scale	Rev	-
Client	Taylor Wimpey West London	Drawn	TR	Checked	KC

Appendix B

Reptile Survey Plan
(CSA/7168/111)



-  Site boundary
-  Reptile refugia survey areas

0 50 100 m



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Project	Maidensfield, Winnersh	Date	August 2024	Drawing No.	CSA/7168/108
Drawing Title	Reptile Survey Plan (2024)	Scale	Refer to scale	Rev	-
Client	Taylor Wimpey West London	Drawn	TR	Checked	KC

Appendix C

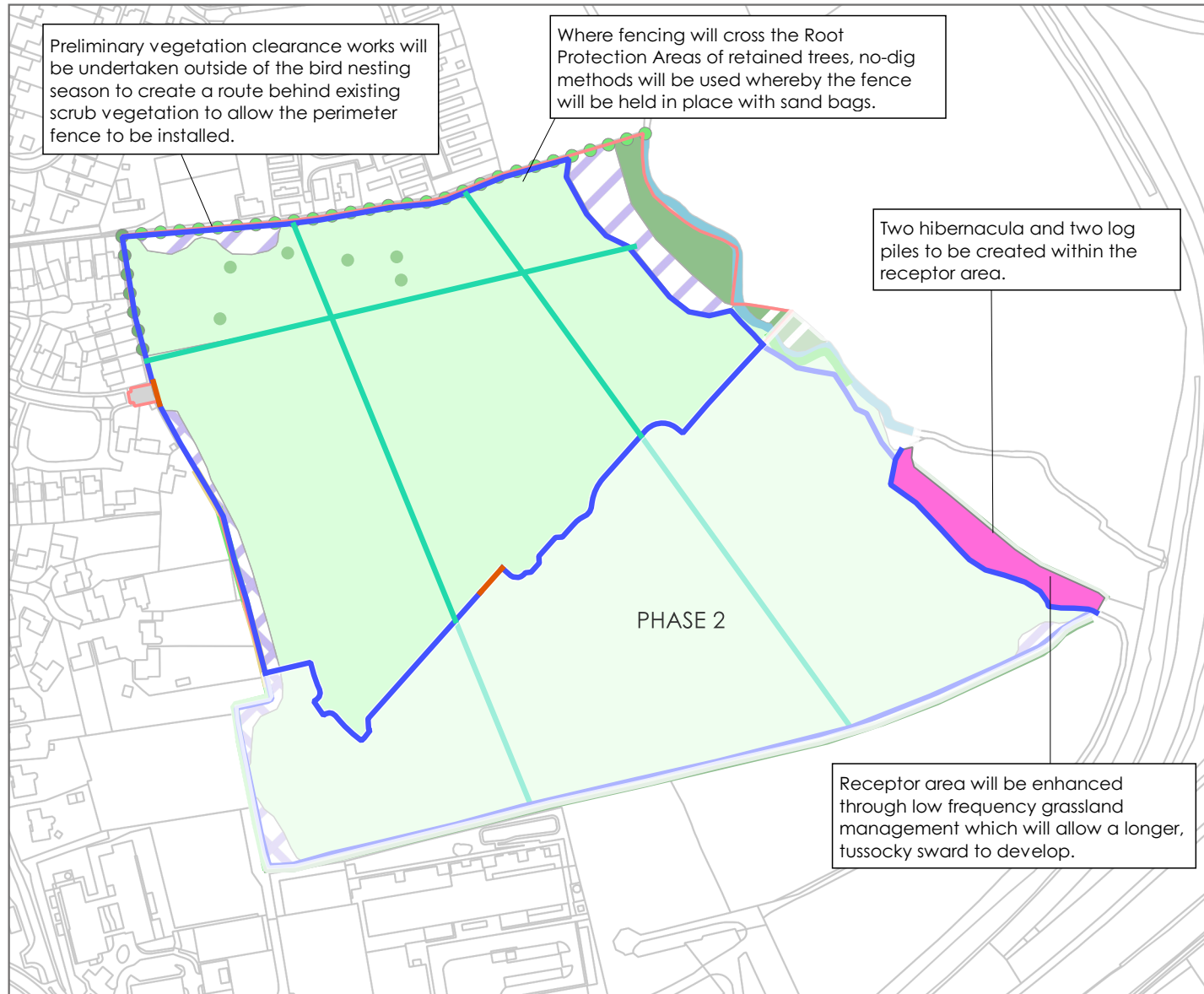
Reptile Survey Results (2024)

Table 1. Reptile Survey Results (2024)

Date	Start Time	Weather Conditions				Area / Field No	Slow-worm				
		Temp. (°C)	Cloud Cover (Oktas)	Wind (Beaufort Scale)	Rain		Adult Male	Adult Female	UnID Adult	Sub- adult	New- born
Survey 1											
02/07/2024	09:30	15	8	3	Very light shower at end of survey	A	1	3	1	1	-
						B	-	6	-	1	-
						C	1	2	-	1	-
						D	-	-	-	7	-
						E	-	1	-	2	5
Survey 2											
09/07/2024	09:40	17	8	2	Dry	A	1	3	-	1	-
						B	1	4	-	3	-
						C	2	2	-	1	-
						D	-	2	-	1	-
						E	2	4	-	4	-
Survey 3											
18/07/2024	08:55	19	2	9	Dry	A	2	3	-	1	-
						B	2	-	-	-	-
						C	4	3	-	2	-
						D	1	1	-	-	-
						E	-	-	-	-	-
Survey 4											
22/07/2024	09:00	19	8	0	Dry	A	-	-	-	-	4
						B	2	2	-	-	-
						C	-	1	-	-	-
						D	2	2	-	-	-
						E	3	2	-	1	-
Survey 5											
30/07/2024	09:00	22	1	0	Dry	A	-	-	-	-	-
						B	-	-	-	-	-
						C	2	2	-	1	-
						D	-	-	-	-	-
						E	1	2	-	1	-
Survey 6											
07/08/2024	08:45	16	1	1	Dry	A	-	1	-	5	-
						B	-	-	-	2	-
						C	-	2	-	-	-
						D	1	2	-	1	-
						E	1	1	-	-	-
Survey 7											
15/08/2024	09:45	19	5	3	Dry	A	-	-	-	1	-
						B	-	-	-	1	-
						C	1	2	-	2	-
						D	-	-	-	1	-
						E	-	4	-	1	-
							Total Adult		Total Juvenile		
							88		51		

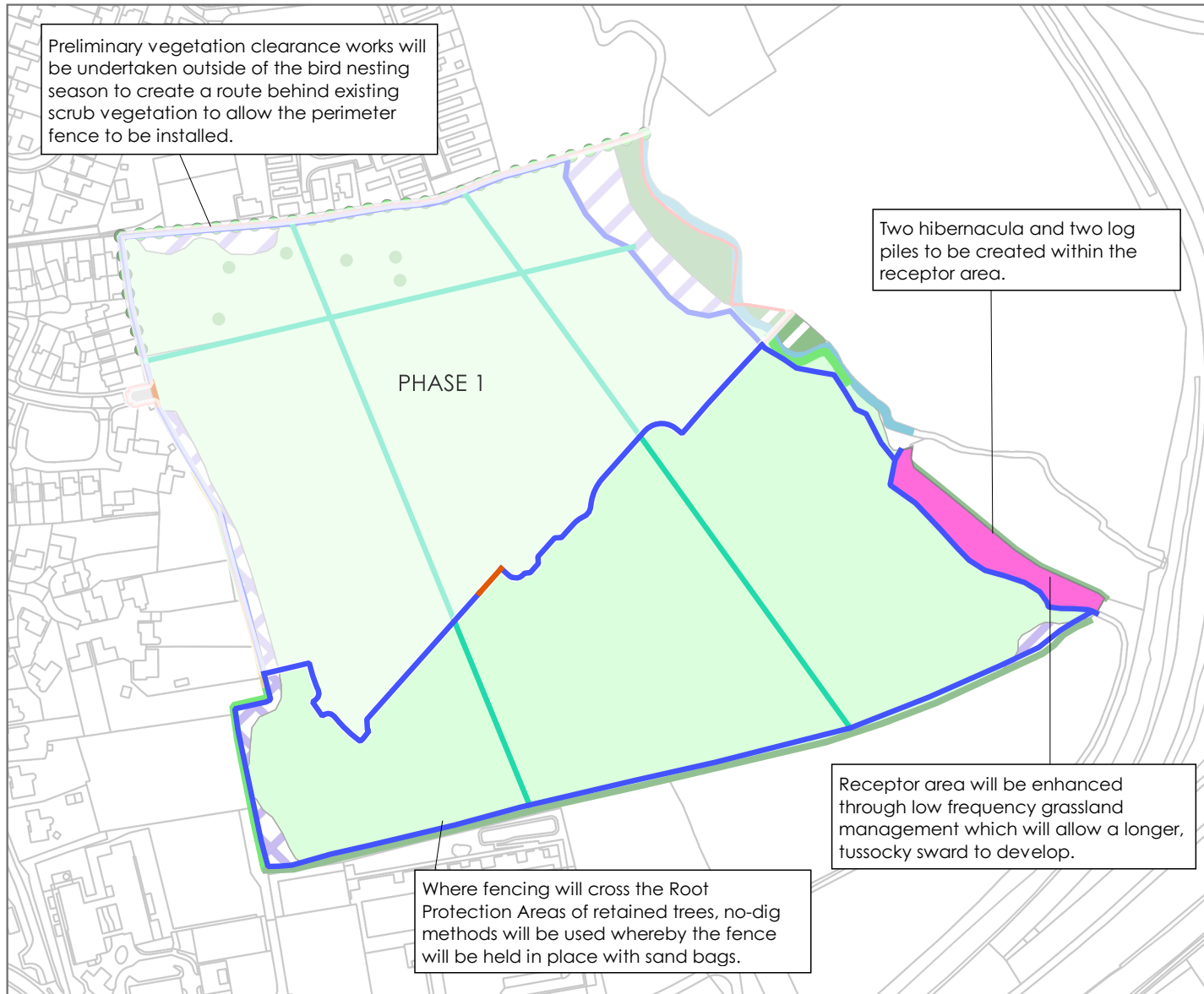
Appendix D

Reptile Mitigation Strategy Plan (Phase 1)
(CSA/7168/207)



Appendix E

Reptile Mitigation Strategy Plan (Phase 2)
(CSA/7168/208)



- Semi-permanent reptile fencing to be removed at the end of the construction period
- Temporary drift fencing to be removed at the end of the translocation exercise
- Section of semi-permanent reptile fencing to be removed and 'returns' installed to facilitate site access following completion of the translocation exercise
- Reptile receptor area

Project	Land off Watmore Lane, Winnersh	Date	April 2025	Drawing No.	CSA/7168/208
Drawing Title	Reptile Mitigation Strategy Plan (Phase 2)	Scale	Refer to scale	Rev	-
Client	Taylor Wimpey West London	Drawn	TR	Checked	KC



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