



CAMBRIDGE SOUTH EAST TRANSPORT PHASE 2

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INTRODUCTION

1. Introduction

1.1 Terms of Reference

AtkinsRéalis UK Limited was commissioned by Greater Cambridgeshire Partnership to undertake several reptile surveys in September and October 2025, in connection with the proposed Cambridge South East Transport Phase 2 Scheme (hereafter referred to as the Proposed Scheme). The Proposed Scheme is located approximately 3.3 km south-east of Cambridge City Centre and includes the area shown within the Survey Location Plans in **Appendix A.1** and **Appendix A.2** (hereafter referred to as the Site).

This report summarises the details of the reptile surveys undertaken including the survey methodologies used and a summary of the field survey results.

The purpose of the surveys was to determine whether widespread reptiles are present or likely absent within the Site; provide recommendations to enable compliance with legislation and policy; and, if necessary, identify the need for avoidance, mitigation, compensation or enhancement measures.

A summary of relevant legislation relating to reptiles is provided in **Appendix B**.

1.2 The Site

The Site begins at Ordnance Survey National Grid Reference (OSNGR) TL 45981 55041 and ends at OSNGR TL52090 50137. The bridge carrying the A11 over the River Granta is located at OSNGR TL 51854 49333.

1.3 The Proposed Scheme

The Greater Cambridge Partnership is the local delivery body for a City Deal signed by central Government to bring powers and investment to the region, including improvements to critical infrastructure. The Greater Cambridge Partnership comprises five partners:

- Cambridge City Council;
- Cambridgeshire County Council;
- Cambridgeshire & Peterborough Combined Authority Business Board
- South Cambridgeshire District Council; and
- University of Cambridge.

The Proposed Scheme is a mostly new, segregated, guided bus route, travel hub, and active travel path located to the south-east of the city. The Site comprises all the land within the red line boundaries as shown in **3.2.1Appendix A.1 and A.2**. This is the proposed Order Limits as defined in the Transport and Works Act Order (TWAo) for the Proposed Scheme¹.

¹ The Cambridge South East Transport Scheme Order Application under the Transport and Works Act (1992). South Cambridgeshire District Council & Cambridge City Council. Last accessed: 10th December 2025.



1.4 Scope of the Assessment

This report presents ecological information obtained during the following:

- A review of a reptile survey undertaken in 2020²;
- A desk-study undertaken in 2025 and presented in the AtkinsRéalis 2025 Ecological Desk Study Report³;
- Field surveys for widespread reptiles undertaken across two survey visits in October for Medipark (09/10/2025 and 24/10/2025), and four survey visits in September and October for the Travel Hub (23/09/2025, 29/09/2025, 09/10/2025 and 24/10/2025).

² Cambridge South East Transport (CSET) Phase 2 Reptile Survey Report February 2021

³ AtkinsRéalis (2025). Ecological Desk-study Report – CSET.



METHODS

2. Methods

2.1 Desk Study

2.1.1 Previous Reports

Surveys for reptiles were undertaken in 2021² as part of previous assessments of the Proposed Scheme; a review of this report was undertaken to help inform the 2025 surveys.

2.1.2 Designated Sites

The desk study comprised the following:

- The Multi-Agency Geographic Information for the Countryside (MAGIC) database⁴ was accessed to obtain information regarding statutory designated sites of nature conservation designated on account for reptiles within 2 km of the Site; and
- Desk study records (including reptile) within 1 km of the Site were received from the Cambridgeshire and Peterborough Environmental Records Centre (CPERC) in September 2025.

2.1.3 Surveyor Competencies

All surveys detailed below were undertaken in accordance with good practice guidance. Each survey was led by an experienced and competent ecologist and an assistant surveyor.

2.2 Field Survey

2.2.1 Presence/ Likely Absence Surveys

Presence/ likely absence surveys for widespread reptile species⁵ were carried out between September and October 2025 in accordance with standard survey guidance⁶ and Chartered Institute of Ecology and Environmental Management (CIEEM) competencies for undertaking reptile surveys⁷.

The extent of the reptile survey was based on the ZOI for this species group and included all suitable habitat as previously identified and surveyed within and immediately adjacent to the boundaries of the Main Works section plus a 10 m buffer extending out in all directions, where access allowed (hereafter referred to as the Reptile Survey Area). Only those areas within the current red line boundary and those with access were surveyed.

Artificial refuges consisting of roofing felt measuring approximately 0.5 m² were laid out within suitable habitat within and directly adjacent to the work boundaries in the Reptile Survey Area. A total of 56 artificial refuge mats were deployed at Medipark Site on 29th September 2025, and 66 artificial refuges were deployed at the Travel Hub Site on

⁴ DEFRA (2019). Multi-Agency Geographic Information for the Countryside (MAGIC). Available at: <https://magic.defra.gov.uk/> [Accessed November 2025].

⁵ Due to the restrictive ranges of smooth snake and sand lizard, these species are not considered within this report.

⁶ Froglife (1999) Reptile Survey: an introduction to planning, conducting and interpreting surveys for snake and lizard conservation. Froglife advice sheet 10.

⁷ CIEEM (2014) Competencies for Species Survey: Reptiles. The Chartered Institute of Ecology and Environmental Management.



5th September 2025. Other suitable refuge features already present within the Site that could be used by reptiles (e.g. litter and logs) were also checked where present.

Two checks of the artificial refuges were undertaken at Medipark and four checks were undertaken at the Travel Hub site in suitable weather conditions (taken to be daytime air temperatures between 9°C and 18°C with little or no wind or precipitation) between the 23/09/2025 and 24/10/2025. Surveyors initially checked the upper surface of reptile mats to identify any reptiles basking. The refuges were then lifted to identify any reptiles present underneath. Notes of any reptiles identified including numbers, species, sex, age, and notable identification features were recorded.

The weather conditions during each survey period are summarised in Table 1.

Table 1– Reptile Survey Conditions Summary

Date	Start-End Time		Start-End Temperature (°C)	Start-End Wind ⁸	Start-End Precipitation ⁹	Start-End Cloud Cover ¹⁰
	Medipark	Travel Hub site				
23/09/2025	-	09:30/10:15	9°C/10°C	0/0	0/0	10%
29/09/2025	-	16:30/17:20	17°C/17°C	0/0	0/0	20%
09/10/2025	09:25/09:55	11:00/12:00	12°C/15°C	0/2	0/0	100%
24/10/2025	09:28/10:30	11:00/12:30	10°C/17°C	0/0	0/0	10%

2.3 Limitations

This section identifies any limitations to the surveys or assessment and provides an explanation as to the effect of these on the appraisal.

An absence of desk study records for a particular species does not necessarily convey an absence of such species in that area but is often a facet of under-recording and/ or reporting to the relevant local environmental records centre. The desk study provides an overview of the species already recorded within the Survey Area and has been used to help inform the requirement for field surveys. As such this is not considered to be a constraint to the interpretation of the desk study records.

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. Therefore, the absence of evidence of any species, including reptiles, should not be taken as conclusive proof that the species is not present or that it will not be present in the future.

Owing to time constraints only two out of seven reptile surveys were undertaken at Medipark and four out of seven reptile survey visits at the Travel Hub site. This is considered to be a significant constraint in that the low number of survey visits has caused a lack of survey data to confirm the presence or likely absence of reptiles in the Survey Area. The lack of survey visits may further be the reason as to why no reptiles were found under refugia, as described in the results section.

Some of the reptile survey visits were undertaken outside of the optimal reptile active season, which is April-September. With the surveys being undertaken later into the season, this has impacted on the ideal weather conditions that reptiles are likely to be basking, due to some of the surveys being completed in the colder months where weather conditions

⁸ Wind speed score of 0-12 against Beaufort scale: 0 = calm, 2 = light breeze, 4 = Moderate breeze, 6 = strong breeze, 7 = High wind, 9 = Strong gale, 12 = Hurricane.
⁹ Precipitation intensity on scale of 0-5: 0 = Dry, 1 = Light drizzle, 2 = Light rain, 3 = Moderate rain, 4 = Heavy rain, 5 = Torrential rain.
¹⁰ Cloud cover on a scale of 0-8: 0 = Sky completely clear, 4 = Sky half cloudy, 8 = Sky completely cloudy

are generally cooler and less ideal to reptiles. However, all surveys were undertaken within suitable weather conditions and therefore this is not considered a significant limitation.

The lack of survey visits and sub-optimal weather conditions may be the cause as to why no reptiles were found under refugia, as described in the results section.

The artificial refugia at Medipark site was only left in-situ for 10 days between deployment on 29/09/2025 and the first survey visit on 09/10/2025. The reptile survey guidance states that refuges are to be left for a minimum of 14 days before first survey visit to give reptiles a chance to find and shelter within. However, as the surveys were to inform species records in the area, this is only considered to be a time constraint with it not causing a major limitation to the Proposed Scheme.



RESULTS

3. Results

3.1 Desk Study

3.1.1 Designated Sites

The MAGIC database returned no statutory designated sites within 2 km or non-statutory designated sites within 1 km of the Site with citations and/ or designations relating to widespread reptiles.

There are several priority habitats located within 1 km of the Site that are considered suitable to support reptiles: Two traditional orchards, 52 deciduous woodland parcels and one lowland meadow. The closest of the priority habitats is a deciduous woodland land parcel located adjacent to the east of the Travel Hub site. The deciduous woodland parcel would provide suitable shelter for reptiles during the colder weather conditions as well as contain refugia within the woodland, such as log piles, for reptiles to seek warmth and hibernation. With the woodland being located adjacent to the Survey Area, it provides opportunities for reptiles to come out of shelter to bask.

3.1.2 Widespread Reptiles

CPERC provided five records of widespread reptile species within 1 km of the Site in the last 10 years. Four of these records were of grass snake with the other one being a common lizard sighting. The closest record was a grass snake located approximately 300 m south-west of the Site at Medipark in 2019. There was no widespread reptile records located within 1 km of the the Travel Hub site.

A search for European Protected Species (EPS) mitigation licences using MAGIC was not required as the site is located in Cambridgeshire where both Sand Lizards and Smooth Snakes are not present.

3.1.3 Previous Reports

The 2020² survey identified 13 sites for further presence/ absence survey for widespread species of reptile. The 2020 survey identified evidence of reptile are summarised in Table 3.1 below:

Table 3.1 – Reptile 2020 Survey Results

Site Reference	Site Description	Site Location	Results
R1	This site was not accessible, however, other surveys conducted in October 2020 showed that the site is under construction and is unsuitable for reptiles.		No reptiles recorded.
R2	This site was a construction site at the time of the pre-assessment check in May and scoped out.		N/A
R3	This site was a managed short uniform		N/A



	grassland when assessed in May 2020 and considered unsuitable for reptiles so scoped out. The grassland had been cut again in late summer 2020.		
R4	This site was a sown grassy margin either side of a dry ditch and hedgerow. The surrounding grassland habitat is well established with tall tussocky areas. Some bramble scrub is encroaching, creating a mosaic of habitats suitable for reptiles.		No reptiles recorded.
R5	This site comprised a grassy margin of variable width and a flood embankment alongside the river Granta. Habitats present included coarse and tussocky grassland with encroaching bramble scrub. The flood embankment was dominated by tall ruderal vegetation comprised of nettles, hop and dense bramble. Blackthorn scrub and trees were also present along the embankment.		A single juvenile grass snake recorded on 2 June 2020 on the riverbank.

R6	This site comprised sown grass 6m margins along both sides of a wet ditch and a grass margin along the river Granta. It also included a set-aside field corner comprising a mosaic of tall ruderal, ephemeral short perennial vegetation with occasional grassy patches.		Two common lizard recorded on 16 July and 17 September 2020 and a single grass snake recorded on 14 September 2020.
R7	This site was a small triangular area of a set aside corner of a field, comprising sown 6m grass margins along two ditches with ephemeral short perennial and tall ruderal vegetation between the grass margins.		No reptiles recorded.
R8	No access possible		N/A

R9	This site comprised three main areas 1. A 6m sown tussocky grass margin north of the river Granta which abutted areas of tall ruderal, scrub and scattered trees, sections of woodland with a pond adjacent. 2. A strip of sown grassland adjacent to a reservoir and green track plus sown grassland adjacent to woodland. 3. A strip of sown grassland adjacent to another field access track. NB. There was a large area of sown grassland to the west of the reservoir which could not be surveyed because of the presence of ground nesting birds, hence surveys were only conducted around the periphery.		three adult grass snakes recorded on 18 and 22 May; and 28 August 2020; with a total of 4 grass snakes over the three occasions. Two of these records were from the same location under mats by a natural refugia, a pile of logs, brash and other debris.
R10	This site is an abandoned site opposite a service station, comprised of ephemeral short perennial vegetation, bare ground with occasional grassy patches and surrounded by plantation broadleaved woodland. The survey was aborted after 4 survey visits because the site was ploughed up in September 2020.		No reptiles recorded.

R11	The site is a grassland dominated by red fescue, but other species have colonised the site from the seed bank due to a lack of management. The sward is dense in places but relatively uniform with sandy soil resulting in heath like conditions. This site is bounded by broadleaved woodland to the north and west and a planted hedgerow to the east. The southern boundary is a Protected Roadside Verge with calcareous grassland where species from the verge have colonised the site.		No reptiles recorded.
R12	The site is located behind a Travel Lodge and comprises a mosaic of dense areas of grassland, bare ground, ephemeral short perennial vegetation, and scattered scrub. The site is surrounded by broadleaved woodland to the north and south with a derelict site (hard standing) partially adjacent to the south and the Travel Lodge car park and ancillary buildings to the west.		No reptiles recorded.

R13	This site comprises a species-rich former grazed meadow with scattered scrub mosaic and is surrounded by tall trees to the south (overgrown hedgerow) and to the east along Hinton Way and broad-leaved woodland to the north and west. The grassland extends beyond the fence line providing clearings in the woodland. This site was identified for an invertebrate survey but initially not a reptile site. The site was considered suitable for reptiles during woodland surveys in May. It was agreed to undertake reptile surveys here in late August.		No reptiles recorded.
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3.2 Field Surveys

3.2.1 Widespread Reptile species

A total of 122 artificial reptile refugia were deployed across two sites (Medipark and the Travel Hub site) and monitored over 2 and 4 survey visits respectively. These were deployed within field margins and adjacent to road verges with suitable surrounding habitat for reptiles to bask and forage, such as other neutral grassland, scrub and woodlands. The arable fields located at the Travel Hub site are regularly managed so are therefore considered to provide sub-optimal habitat for the species.

From the survey visits undertaken at each location, there was no widespread reptiles species recorded sheltering under the refugia and no reptiles or evidence of reptile (such as discarded skin) encountered within the Survey Area at time of visits. However, even though no reptiles have been recorded under refugia at time of surveys, this does not confirm the absence of widespread reptile species in the area due to the surrounding habitats being suitable to support the species.

The surveys being performed later into the core reptile season and the lack of survey visits, may be possible causes to the reason why no widespread reptiles were recorded under the artificial refugia.

APPENDICES

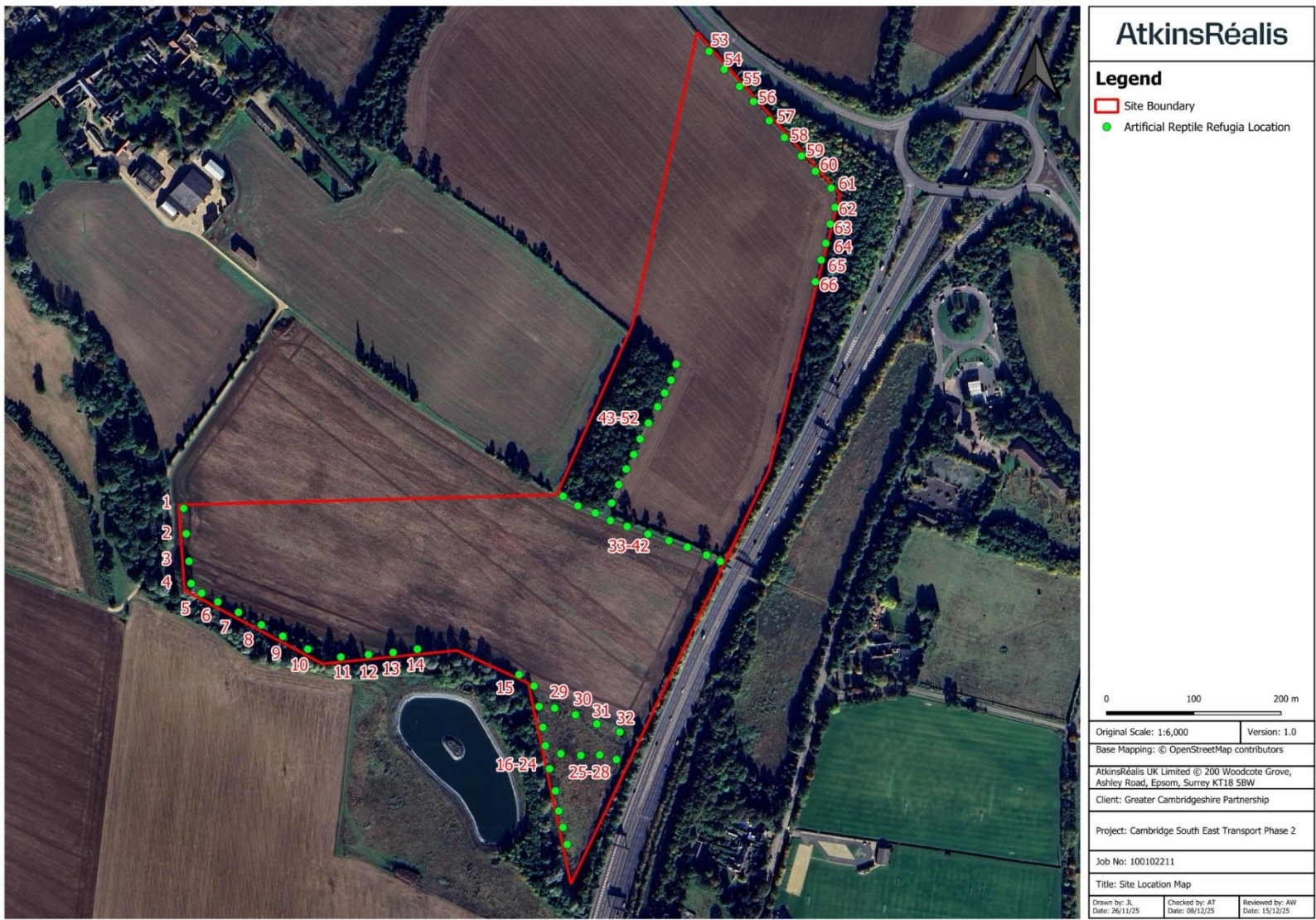
Appendix A. Site Location Plan with Artificial Refugia Locations



A.1 Figure A-1: Site Location Plan and Artificial Reptile Refugia - Medipark



A.2 Figure A-2: Site Location Plan and Artificial Reptile Refugia - Travel Hub site



Appendix B. Summary of Species Legislation

Species	Legislation	Relevant offences	Licensing procedures and guidance
Adders Common lizards Grass snakes Slow worms	Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9.	Intentionally kill, injure, or take any widespread reptile species.	No licence is required ¹¹ . However, an assessment for the potential of a site to support reptiles should be undertaken prior to any development works which have potential to affect these animals. Guidance documents: <i>NE Standing Advice for protected species 2022</i>

¹¹ Natural England will only consider licence applications to kill or injure reptiles in truly exceptional circumstances. Natural England will not be providing a definition or criteria of what constitutes ‘exceptional circumstances’ as these applications would need to be assessed on a case-by-case basis. Natural England expects developers and ecologists to continue to adhere to current best practice mitigation measures that avoid injuring and killing reptiles and which do not require a licence.



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