

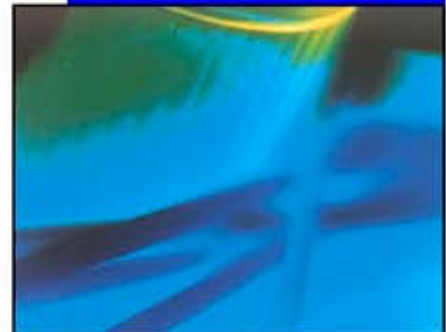


Landscape Architecture

Mackellar-Schwerdt Architects

**Meridian Community Primary School,
Peacehaven, East Sussex**

– Detailed Reptile Survey Report



Environmental Design

Approved By: Joe Jackson
Signed:
Position: Principal
Date: 25th April 2016



Landscape Planning

April 2016 – Planning Issue

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Lizard Landscape Design

Lizard Landscape Design and Ecology



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SUMMARY

Mackellar Schwerdt Architects has commissioned Lizard Landscape Design and Ecology to undertake a Reptile Population Class Assessment Presence / Absence Survey of Meridian Community Primary School, Roderick Avenue, Peacehaven. (*Grid Reference: TQ 414 024—hereafter referred to as 'the site'*)

A 'low' population of slow worm was encountered on the site during reptile surveys undertaken during March/April 2016. At a peak count 1 no. slow worm was recorded during the survey.

Given the very low numbers of reptile identified by the reptile survey a full translocation exercise is not considered proportionate. The below method statement is designed to ensure that no reptiles shall be recklessly or intentionally killed or injured during the construction process, in line with *The Wildlife and Countryside Act 1981 (As amended)*.

All activities shall be carried out during the reptile active season (*March-October*). It is recommended that clearance be undertaken no earlier than August to avoid the bird nesting season. Any areas of slabs, decking, logs and rubble or stone piles shall be removed by hand under the supervision of a suitably qualified ecologist. Vegetation should be removed in stages with an initial trim reducing vegetation to no less than 15cm. A subsequent cut will then reduce vegetation to a height of <5cm rendering the area unsuitable for reptiles. All arisings will be removed from the site to prevent the creation of compost piles which are attractive to reptiles.

All site clearance activities shall be supervised by a suitably qualified ecologist. Any reptiles encountered during the site clearance shall be stored in cloth bags before being translocated to the retained habitat area to the north.

Vegetation on site will be maintained to a height of less than 5cm before and during any construction activities to render the area unsuitable for reptiles. A short stretch of temporary reptile fencing shall be erected along the northern boundary of the construction zone to prevent potential conflict with reptiles in this area.

1.0 INTRODUCTION

- 1.1 Mackellar Schwerdt Architects has commissioned Lizard Landscape Design and Ecology to undertake a Reptile Population Class Assessment Presence / Absence Survey of Meridian Community Primary School, Roderick Avenue, Peacehaven. (*Grid Reference: TQ 414 024– hereafter referred to as ‘the site’*)
- 1.2 The survey was recommended within the Extended Ecology Phase 1 Habitat Survey undertaken on 15th February 2016, due to habitat being identified as having the potential to support protected species of reptiles. This report outlines the results of the reptile surveys, reptile mitigation strategy and habitat enhancements. This report has been prepared by Catherine O’Reilly (*BSc; Project Ecologist – Lizard Landscape Design and Ecology*). This report has been reviewed by Joe Jackson (*BA (Hons), LA DipLA CMLI; Principal – Lizard Landscape Design and Ecology*)

Site Information

- 1.3 The site is located in Peacehaven, to the east of Brighton in East Sussex. The site covers approximately 2.1 hectares and is approximately 62.00 metres above sea-level. No existing public rights of way exist across the site and permission has been sought to access the site.
- 1.4 The site is formed of an operational school premises and has been managed for this purpose with most of the land being buildings, hardstanding (*sports court / playground*) and amenity grassland (*sports pitches and playing fields*). The buildings and hardstanding surfaces are concentrated in the western and northern sectors of the site with sports pitches dominating the southern sector. The site is enclosed by secure fencing with scattered trees to all boundaries. The area internally is particularly open with scattered trees around existing buildings. There are no water bodies or woodland listed on *The National Inventory of Trees and Woodland* either within or adjacent to the site.

Survey Rationale

- 1.5 The ecological survey conducted during February 2016 identified habitats of amenity grassland; buildings; hardstanding; introduced shrub; and scattered trees and hedging to the site boundaries. The habitat area to the north-western corner of the site is formed of rough grassland with scattered trees and shrubs.

- 1.6 Although the sward is of limited interest botanically, the rough grassland combined with areas of scrub, debris and compost piles were considered to provide optimum habitat for common species of reptile. Suitable reptile habitat on site covers an area of approximately 0.15 hectares.

Development Proposals

- 1.7 A small area to the south of the existing habitat area shall be lost to make way for additional car parking. The northern section of the existing habitat area is to be retained.

Widespread Reptiles

- 1.8 The common or viviparous lizard (*Zootoca vivipara*) has a wide range over most of Europe. Its body can reach 7.0 cm in length and can have variable patterns and colour. Slow worm (*Anguis fragilis*) is also found over most of Europe. They can reach lengths of up to 50.0 cm and are typically brown, grey, or reddish, with females frequently having a dorsal stripe. The grass snake (*Natrix natrix*) is a thick-bodied snake that may reach up to 120.0 cm in length, with many of the species having a distinctive yellow and black collar. The adder (*Vipera berus*) has a characteristic diamond pattern along the back.
- 1.9 Adders, grass snakes, common lizards and slow worms are protected against killing, injury or sale under the *Wildlife and Countryside Act 1981*. Developments that could predictably kill or injure reptiles could result in an offence. Furthermore, these species are targets of UK and Local Biodiversity Action Plans and listed as *Species of Principle Importance* under *Section 41* of the *Natural Environment and Rural Communities Act 2006*. This obligates local authorities to have regard to the purpose of conserving biodiversity with particular emphasis on targeted species.
- 1.10 The *National Planning Policy Framework (published March 2012)* states that the planning system should minimise impacts on biodiversity and provide net gains, where possible.

2.0 SCOPE OF SURVEY

2.1 The aim of the reptile survey was to:

- *identify the presence / absence of reptile species within the site as a whole;*
- *estimate population size classes for said populations;*
- *advise mitigation for reptiles within the proposed development scheme.*

3.0 METHODOLOGY

3.1 25 no. artificial reptile refugia (*roofing felt / Coroline; 0.50 x 1.0 m²*) were laid out around the site on 16th March 2016 and allowed to settle for 14 days prior to commencement of the survey. (*Location of the artificial reptile refugia is shown in Figure No. 01*).

3.2 07 no. site visits were conducted, where the number, species, age and sex of the reptiles present were recorded.

3.3 Surveys were undertaken during recommended times (*08:00–11:00 and 16:00–18:30*) with suitable weather conditions for surveying reptiles (*guidelines recommend temperatures between 9°C and 18°C, with intermittent or hazy sunshine during warm days*). Weather conditions recorded at each survey visit are shown in Table No. 01

Table No. 01 – Details of Weather Conditions during the Reptile Survey

Survey	Date of Visit	Time	Weather
01	30.03.16	15:00	11°C – Sunny with some scattered cloud, wind force 2.
02	01.04.16	16:00	12°C – Sunny spells, dry, wind force 3
03	05.04.16	10:00	10°C - Sunny spells, dry, wind force 2
04	08.04.16	10:00	13 °C – Sunny, dry, calm
05	11.04.16	15:00	11 °C – Showers
06	13.04.16	15:30	14 °C – Sunny, dry, calm
07	15.04.16	10:00	10 °C – Overcast with sunny spells

Evaluation Methodology

3.4 Despite its withdrawal, *Natural England Technical Information Note TIN102* still provides a valuable resource tool to allow the comparison and evaluation of reptile populations on site. A population size class category has been derived using guidance provided by the Key Reptile Site Register mechanism (*Froglife – Advice Sheet 10*), designed to promote the protection of key reptile areas.

3.4.1 The criteria for key reptile site selection include:

- 1) *supports 3 or more reptile species;*
- 2) *supports 2 snake species;*
- 3) *supports an exceptional population of one species (see Table No. 02);*
- 4) *supports an assemblage of species scoring at least 4 (see Table No. 02);*
- 5) *supports a local rarity or even adder with low population score.*

3.4.2 The population size classes used in this instance are provided in *Froglife – Advice Sheet 10* and displayed in Table No. 02.

Table No. 02 – Population Scores for Selection of Key Reptile Sites

Species	'Low' Score 1	'Good' Score 2	'Exceptional' Score 3
Adder	< 5	5 – 10	> 10
Grass Snake	< 5	5 – 10	> 10
Common Lizard	< 5	5 – 20	> 20
Slow Worm	< 10	5 – 20	> 20

3.4.3 Figures in Table No. 02 refer to the maximum number of reptile adults seen by observation and / or under refugia by one person during one survey visit with artificial refugia placed at a maximum density 10/ha.

4.0 RESULTS

4.1 Background Information

4.1.1 UK and Sussex Biodiversity Action Plan species of slow worm (*Anguis fragilis*) have been recorded approximately 750.00 metres to the east, and common lizard (*Zootoca vivipara*) approximately 1.0 kilometre to the north of the development site. Grass snake (*Natrix natrix*) has been recorded within 1.5 kilometres to the north-west of the development site.

4.2 Field Survey

4.2.1 A summary of reptiles seen on the site during the survey visits is shown below in Table No. 03. The full results are shown in *Appendix No. 01 – Full Survey Results*.

- An 'low' population of slow worms was recorded during surveys undertaken during March/April 2016;
- The greatest number of individual slow worms recorded during one survey visit was 1 no.;
- Slow worms were recorded under 2 no. of the 25 no. artificial reptile refugia laid out around the site (8%);
- No adders, grass snakes or common lizards were recorded during surveys undertaken during March/April 2016.

Table No. 03 – Reptile Survey Summary

Visit No.	CL Adults	CL Total	SW Adults	SW Total	GS Adults	GS Total
01	0	0	0	0	0	0
02	0	0	1	1	0	0
03	0	0	0	0	0	0
04	0	0	0	0	0	0
05	0	0	1	1	0	0
06	0	0	0	0	0	0
07	0	0	0	0	0	0

SW = Slow Worm; CL = Common Lizard; GS = Grass Snake.

4.3 Constraints and Limitations

4.3.1 Bad weather during the 14 day settling period resulting in many of the mats being displaced by the wind. Once this was discovered the mats were replaced and left for a further 5 no. days before the survey commenced. It is not anticipated that this will have a major adverse effect upon the result of the survey due to the high density of mats, optimal weather conditions during the survey and low number of slow worm encountered.

5.0 EVALUATION

5.1 A 'low' population of slow worm was encountered on the site during reptile surveys undertaken during March/April 2016.

5.2 At a peak count 1 no. slow worm was recorded during one survey. As a 'general rule of thumb' it is accepted that a reptile survey under optimal conditions will reveal around 10% of the reptile population under scrutiny. That said, given the high probability that the survey revealed the same slow worm on two separate occasions, this population estimate is likely to be disproportionate to the amount of slow worms actually within the site.

5.3 No adders, grass snakes or common lizards were found during the surveys undertaken in March/April 2016. The survey data was obtained during the optimum survey season for each species group and surveys were designed using best-practice protocols. Together with the frequency of survey visits undertaken, it can be stated with confidence that the site is very unlikely to support populations of these protected species of reptile.

5.4 Reptiles were found within a small portion of the site only, with sightings limited to the north-eastern boundary of the habitat area. Reptiles were found beneath 2 no. adjacent mats in this area, meaning that only 8% of the total number of mats harboured reptiles. The abundance of slugs and snails within the area is further testament to the low population of slow worm on site.

5.5 The low number of reptiles found within this area is likely attributed to the isolation and relative youth of the habitat. The area is bordered by closedboard residential fencing to the north and west while the car park and access road form the southern and eastern boundaries.

5.6 The majority of suitable reptile habitat on site within the residential development area would be retained under current development proposals; therefore a full translocation and exclusion exercise is not considered proportionate when considering the very low number of reptiles found on site. An avoidance strategy and detailed method of working is proposed to avoid any contravention of *The Wildlife and Countryside Act 1981 (As amended)*.

6.0 REPTILE MITIGATION METHOD STATEMENT

6.1 Given the very low numbers of reptile identified by the reptile survey a full translocation exercise is not considered proportionate. The below method statement is designed to ensure that no reptiles shall be recklessly or intentionally killed or injured during the construction process, in line with *The Wildlife and Countryside Act 1981 (As amended)*.

6.2 All activities listed below shall be carried out during the reptile active season (*March-October*). It is recommended that clearance be undertaken no earlier than August to avoid the bird nesting season. Any areas of slabs, decking, logs and rubble or stone piles shall be removed by hand under the supervision of a suitably qualified ecologist.

6.3 Vegetation should be removed in stages with an initial trim reducing vegetation to no less than 15cm. The area shall then be inspected for the presence of any reptiles; any reptiles found will be stored in a cloth bag prior to translocation. A subsequent cut will then reduce vegetation to a height of <5cm rendering the area unsuitable for reptiles. All arisings will be removed from the site to prevent the creation of compost piles which are attractive to reptiles.

- 6.4 All site clearance activities shall be supervised by a suitably qualified ecologist. Any reptiles encountered during the site clearance shall be stored in cloth bags before being translocated to the retained habitat area to the north.
- 6.5 Vegetation on site will be maintained to a height of less than 5cm before and during any construction activities to render the area unsuitable for reptiles. A short length of temporary reptile fencing will be erected along the northern boundary to prevent any reptiles re-entering the construction zone.

7.0 HABITAT CREATION/COMPENSATION

- 7.1 Development proposals will cause the loss of the schools existing habitat area. New habitat is proposed to be created to the north of the existing school site in an area which will be created by the demolition of a temporary class room.
- 7.2 The area shall be seeded with a suitable wildflower mix which shall be mown on an annual basis after establishment to ensure the proliferation of wildflowers. Log piles and compost heaps shall be incorporated into the area to increase invertebrate availability and provide breeding opportunity for reptile species.
- 7.3 Structural diversity will be provided through the planting of native shrubs and trees while the use of plants as listed on the RHS perfect for pollinators list will further increase invertebrate foraging opportunities thereby increasing food availability at higher trophic levels.

8.0 REFERENCES

Arnold, E (2002): A Field Guide to the Reptiles and Amphibians of Britain and Europe; Collins, London.

Edgar P, Foster J and Baker J (2010): Reptile Habitat Management Handbook; Amphibian and Reptile Conservation, Bournemouth;

Griffiths, R A and Inns, H (1998): Surveying; Herpetofauna Workers' Manual;

www.arc-trust.org: Herptile Conservation Trust and Froglife (Merged 2009);

Natural England – London and the Southeast Region: Standing Advice Species Sheet, Reptiles; Draft (2010); naturalengland.org.uk.

Appendix No.1 – Reptile Artificial Refugia Survey Full Results

Site: Meridian Community Primary School, Peacehaven

Client: Mackellar-Schwerdt Architects

Surveyor: CO

<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>Ad/J</i>
01	31.03.16	15:00	11	Periods of sun and clouds	n/a	-	-

<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>M/F/J</i>
02	01.04.16	16:00	12	Sunny, dry, calm	02	SW	F

<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>Ad/J</i>
03	05.04.16	10:00	10	Periods of sun and clouds	n/a	-	-

<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>Ad/J</i>
04	08.04.16	10:00	13	Sunny, dry, calm	n/a	-	-

<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>Ad/J</i>
05	11.04.16	15:00	11	Showers	01	SW	F

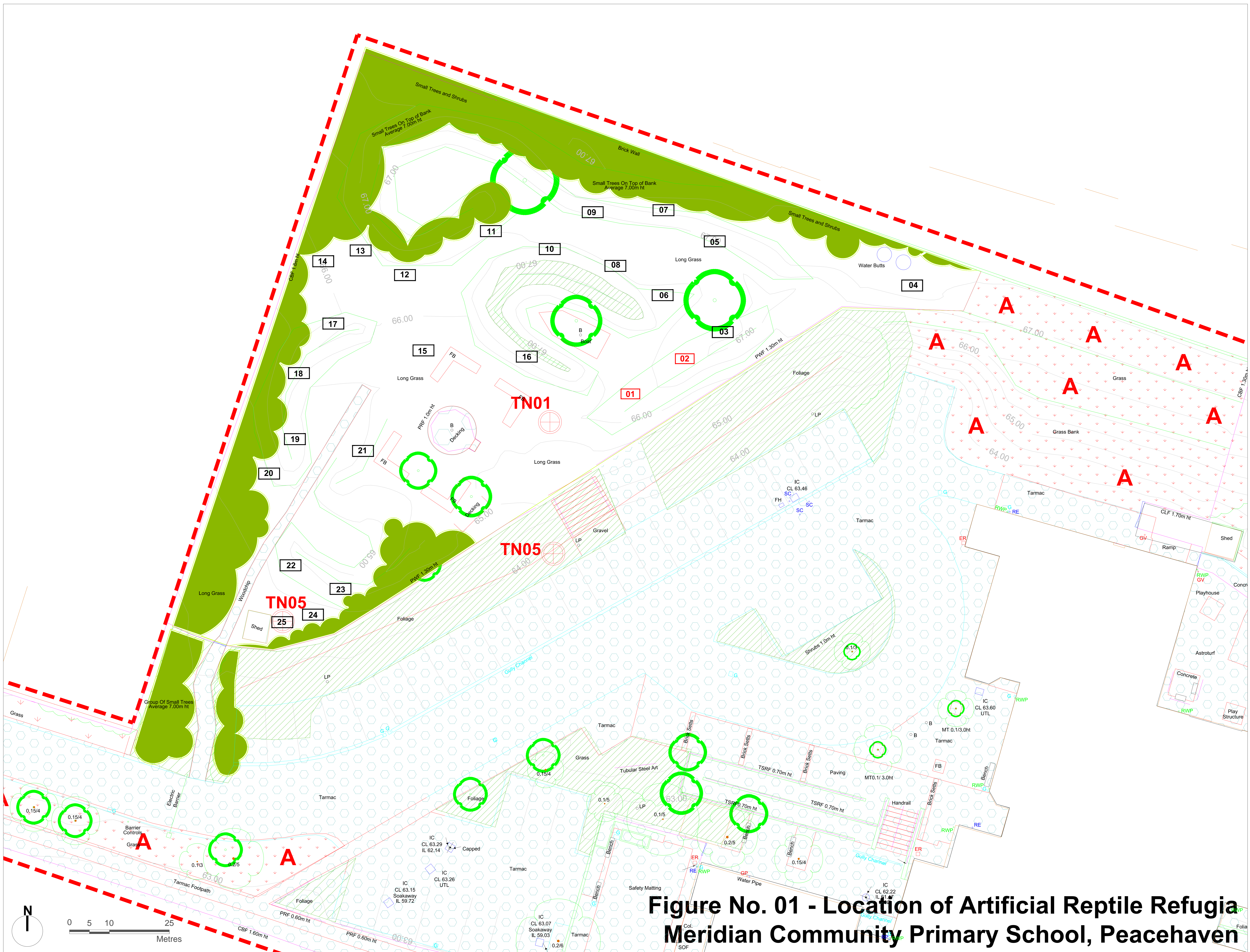
<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>Ad/J</i>
06	13.04.16	15:00	14	Sunny, dry, calm	n/a	-	-

<i>Visit</i>	<i>Date</i>	<i>Time</i>	<i>°C</i>	<i>Weather</i>	<i>Trap No.</i>	<i>Species</i>	<i>Ad/J</i>
07	15.04.16	10:00	10	Overcast with sunny spells	n/a	-	-

SW = Slow Worm; CL = Common Lizard; CT = Common Toad;

GS = Grass Snake; M = Male; F = Female; Ad = Adult; Im = Immature;

J = Juvenile.



- Legend**
- Scattered Trees
 - Hard / Bare Ground
 - Botanical Target Notes
 - Development Site Boundary / Survey Area
 - Mixed Boundary Tree/Shrubline
 - Intact Beech Hedge
 - Improved Amenity Grassland
 - Poor Semi-Improved Grassland
 - Introduced Shrub Planting
 - Buildings
- Reptile Legend**
- Reptile Refugia: Location of Artificial Reptile Refugia
 - Reptile Refugia: Protected Species of Slow Worm (*Anguis fragilis*) Confirmed

Note: The original of this drawing was produced in colour - a monochrome copy should not be relied upon.

Draft Planning Issue

Rev	Description	Date	Initials
00	Draft Planning Issue	22.04.16	GS

Lizard Landscape Design

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Project title			
Meridian Community Primary School, Peacehaven			
Location of Artificial Reptile Refugia			
Scale	Drawn	Date	
1:100@A0	GS	22.04.16	
Drawn by	Approved		
GS	COR		
Drawing No.	Revision		
Figure No. 1	00		

Figure No. 01 - Location of Artificial Reptile Refugia Meridian Community Primary School, Peacehaven

