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Mitigation Excellence

# **29 Seabourne Road, Bexhill, East Sussex Townhouses**

**Mitigation Strategy: Badger**

**Mitigation Strategy: Reptiles**

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Produced on behalf of Christie Developments on  
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Site Reference: EE-21-06050-05

Site Address: 29 Seabourne Road, Bexhill-on-Sea, East Sussex

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## 1.0 BACKGROUND INFORMATION

- 1.1 Christie Developments Ltd have applied for planning permission to construct three residential dwellings at 29 Seabourne Road, Bexhill, East Sussex (*hereafter referred to as the 'site'; OS Grid Reference: TQ 75952 08770*).
- 1.2 Following professional consultation in 2020, it was established that an active, main badger sett was located in the north-western section of the site (see Figure 1, following page). A badger survey was undertaken on 13<sup>th</sup> October 2020 and 21<sup>st</sup> October 2020 wherein it was established that the badger sett was a main sett comprised of eight active entrances and four partially dug holes. Well-worn badger runs were found across the site with a few routes criss-crossing the site. Areas of bedding, prints and feeding signs were noted across the site. Two badger sett entrances within the garden of 2 Bishops Walk (adjacent to the west) were noted and it was concluded that they were most likely connected to the main sett on site.
- 1.3 It was the opinion of the ecologists that, in the context of the development proposals, disturbance to the badger sett would have been unavoidable. The chosen course of action was therefore to temporarily exclude the badgers from the main sett, exclusion was to last for the duration of the construction period whereupon exclusion measures would be removed, and long-term access would be returned to the badger group. Given the lack of opportunity to provide badger with a replacement sett either on-site or off-site, this option for mitigation was not considered feasible.
- 1.4 At this time, the development had an active planning consent therefore an application for a mitigation licence was submitted, to Natural England, to provide legal authority for the exclusion of badger from the main sett on-site, subject to its conditions. Natural England supplied a Class Licence for Badger for 'interference with badger setts and exclusion of badgers from their setts and closure/destruction of setts'.
- 1.5 It is understood in writing this that access and timing constraints led to Natural England withdrawing the Class Licence which prevented the exclusion of badger from the main sett. Access could not be obtained to the two entrance tunnels located at 2 Bishops Walk, Bexhill, therefore, it was concluded that the badgers could not be effectively excluded from the sett.

Figure 1: Location of Main Sett and Annex Sett at 29 Seabourne Road, Bexhill



- 1.6 Epoch Ecology Ltd were contacted in May 2021 to provide consultation as to the most effective way in which to progress the application. A site consultation was undertaken on 10<sup>th</sup> June 2021, it was decided that a Ground Penetrating Radar (GPR) survey to identify the subterranean extent of the badger sett could provide useful information upon which to make decisions, such as the design of a no-dig exclusion zone and the installation of a subterranean badger exclusion fence. It was noted that a significant amount of vegetation clearance would be needed to facilitate the undertaking of a GPR survey.

- 1.7 At some point between the application for the Class Licence to exclude badgers from the main sett and the site consultation, the original planning consent had elapsed. It was advised during the site consultation (10<sup>th</sup> June 2021) that to progress the development an up-to-date Preliminary Ecological Appraisal (PEA) to inform a new planning application would be necessary.
- 1.8 It was further advised during this consultation that a reptile survey would be needed to accompany the application and that this would need to be completed before the vegetation clearance (needed to facilitate the GPR survey) could be undertaken. Additionally, an annex/subsidiary sett was identified along the southern section of the western site boundary slightly to the east of the badger path that is present along the western site boundary (see Figure 1, previous page). The entrance to the annex sett is within the footprint of the hard landscaped area and would therefore need to be closed to facilitate the development.
- 1.9 A reptile survey was established on 11<sup>th</sup> June 2021 and 10 survey visits were undertaken between 25<sup>th</sup> June 2021 and 30<sup>th</sup> July 2021. A peak count of 17 slow worm were recorded with 13 adults, a medium-sized population, with the records being distributed evenly across the whole of the site; no other reptiles were recorded during the survey period. The survey results indicated that temporary efforts to mitigate the impact of site clearance would be necessary, it was also clear that an on-site solution would be required to mitigate the development's impact over the long-term.
- 1.10 The site was cleared over four days (30<sup>th</sup> July, 02<sup>nd</sup> August, 03<sup>rd</sup> August, & 04<sup>th</sup> August 2021) using hand tools (2 x brush cutters) and under the supervision of a Suitably Qualified Ecologist (SQE). The arisings were collected using garden rakes and aggregated to create one large brush/compost pile in the northern section of the site which was used as temporary refuge habitat into which captured slow worm were released. Arisings from the southern section of the site were stored locally for use later (as part of the long-term strategy for reptile mitigation), there were also many bricks and much dead wood that were collected as part of the site clearance that have also been stored for this purpose. Each area was checked for active bird nests and slow worm prior to clearance.

- 1.11 To maximise the opportunity for the GPR survey to successfully chart the subterranean extent of the main sett in the northern section of the site and the annex sett in the southern section of the site, it was advised by the technicians undertaking the GPR survey that they would require the land to be as close to bare earth as possible which is what the site clearance sought to achieve. The area around each sett was surveyed with the GPR equipment on 16<sup>th</sup> August 2021 and the results were submitted quickly thereafter.
- 1.12 The GPR survey in the northern section of the site was hindered by the undulating nature of the ground around the main sett and anomalies, suggested to be things such as bricks, within the soil. Unfortunately, it is not considered to have provided sufficient insight to provide the foundation of a mitigation strategy based on exclusion zones and subterranean exclusion fences.
- 1.13 It has not been reported that the GPR survey in the southern section of the site was impacted in a similarly negative way. The GPR survey output from this area reported no signs of subterranean voids, the parameter we used to indicate the presence of a badger tunnels/chambers. Given the disappointing return of the GPR survey in the northern section, it is deemed prudent to treat this information with an element of caution, however, given the other site constraints this is not particularly significant. The entrance to the annex sett is within the hard landscape area, therefore, there is no option but to exclude badgers and close this sett under licence from Natural England.
- 1.14 The closing of the annex sett (southern sett) obviates the need to determine an effective exclusion zone and/or other measures to minimise disturbance to badger. Limitations of access, however, demand that the main sett (northern sett) is retained within the site footprint. It will be necessary, therefore, to bring together appropriate means of minimising the potential impacts of the construction process to effectively **avoid** disturbing badger in a sett.
- 1.15 For information, disturbance in the context of this report would be considered to have occurred as the result of *'construction activities that prevented or significantly impaired the ability of badger to undertake behaviour and life processes essential to their short, medium, and long-term survival'*.

## 2.0 MITIGATION STRATEGY: BADGER

2.1 The two badger setts will be treated with different regimes of avoidance/mitigation in this mitigation strategy:

### **Main Sett (Northern Sett): Strategy for Retention (Avoidance)**

2.2 Damage to the sett architecture will be avoided by the establishment of a no-dig exclusion zone (EZ). The distance of the EZ will measure a minimum of 12 metres from the nearest sett entrance. This is the maximum distance the site constraints will allow, and it is considered a suitable working distance from which to avoid damaging the main sett (refer to Section 3.0; Paragraphs 3.1-3.4 & Figure 2). Owing to the small scale of the site and the presence of other planning conditions to discharge, there is a small amount ( $\leq 2.0\text{m}$ ) of variation that could be accommodated. The mitigation strategy will, however, aim to achieve the maximum EZ possible and any deviation will be subject to on-site consultation.

2.3 Above-ground disturbance will be avoided by installing wooden hoarding, to a height of circa 3.0 metres, along the edge of the EZ which will act as the site boundary for construction activities (except soft landscaping in garden areas). The outline of the wooden hoarding will trace the outline of the building footprints whilst leaving space for the erection of a scaffolding and walkway for operational and emergency access. Wooden hoarding is preferred to Herras fencing because of its acoustic blocking properties. It is considered prudent to install a subterranean badger fence along the edge of the exclusion zone to future-proof the proposed buildings from being undermined by the extension of badger tunnels. This is considered optional from an ecological perspective.

2.4 Below-ground disturbance will be avoided by the prohibition of heavy/vibration-causing machinery within the EZ. Heavy vehicles required for loading/unloading will be limited to a small area adjacent to the site access to Seabourne Road. Site demolition and construction of foundations will require a large digger (or equivalent thereof) which may cause vibrations, however, its presence on site will be limited as much as is practicable.

- 2.5 Access will be maintained over the short term (construction period) by maintaining a pathway from Seabourne Road to the main sett that remains outside of the construction zone until the hard landscaping adjacent to the western site boundary is undertaken. It is only for the construction of the hard landscaping (car park bay/access) that this pathway will be altered, it will be maintained again immediately following its completion. This approach leaves open the risk that badgers can access the construction site, particularly out of hours, so the site management should take a diligent approach to minimising the risk from factors such as falling storage items and uncovered holes/pits. It is also advised to refrain from storing large amounts of soft earth or other such material that badger can dig into.
- 2.6 It is considered that the landscape design leaves a suitable distance between the buildings and the site boundary over the long term. A previous mitigation strategy recommended the use of a submerged land drain for access. This is not considered necessary for this application.
- 2.7 A circa 5.0 metre strip along the northern site boundary has been proposed for bespoke on-site mitigation which will lay outside of the three gardens of the proposed dwellings. This will ensure that none of the existing badger sett entrances directly access any of the proposed gardens which will minimise disturbance over the long-term. It has been proposed that the garden boundaries are delineated with hedgerow rather than fence to minimise digging in the EZ and to maximise the permeability of the habitat for badger over the long-term. This area will also act as a receptor/enhancement area for slow worm/biodiversity.

**Annex Sett (Southern Sett): Strategy for Closure (Mitigation)**

- 2.8 The Annex Sett will be closed under licence from Natural England because it is directly within the hard landscaped area therefore it is not feasible to be retained.
- 2.9 The NE Licence will require badger to be demonstrably excluded for a minimum of 30 days. Following this exclusion period, the sett will then be carefully dismantled using a mini digger.



### 3.0 MITIGATION STRATEGY: BADGER (SUPPLEMENTARY INFORMATION)

#### **Exclusion Zone: Maximising the Area**

- 3.1 In undertaking the GPR survey, it was anticipated that the output would provide us with clarity as to the subterranean extent of both badger setts which we could then use to develop the most informed Exclusion Zone (EZ) that was possible. The site limitations have precluded this eventuality therefore the next best option available to us is to establish the largest EZ that we can (up to 20 metres).
- 3.2 A site consultation was undertaken 01<sup>st</sup> September 2021 wherein the northern footprint of the proposed dwellings was marked with yellow flags. A measuring wheel was then employed to establish the distance between the closest sett entrance and each of the buildings. The smallest distance between the footprint of a proposed building and a sett entrance was recorded as being circa 12 metres.
- 3.3 Owing to the small scale of the site and the presence of other planning conditions to discharge, there is a small amount ( $\leq 2.0\text{m}$ ) of variation that could be accommodated. The mitigation strategy will, however, aim to achieve the maximum EZ possible and any deviation will be subject to on-site consultation.

#### **Exclusion Zone: Location of Fencing and Prohibited Activities**

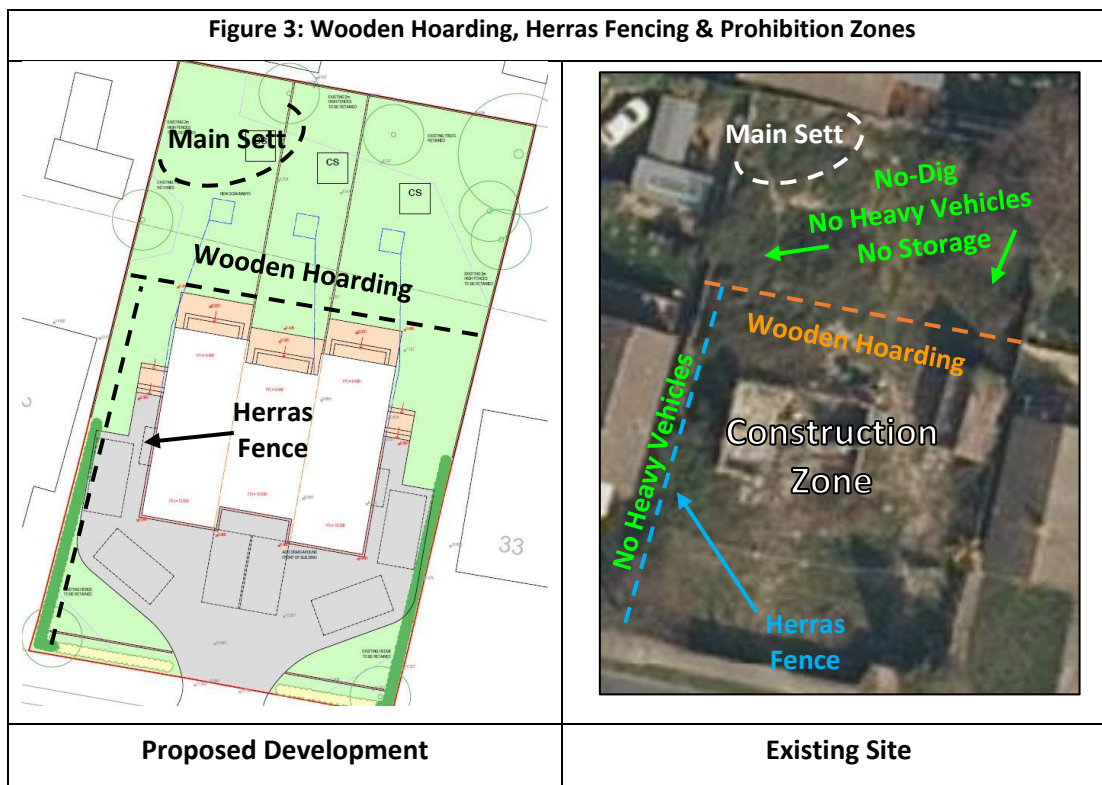
- 3.4 Above-ground disturbance will be avoided by installing wooden hoarding to a height of c. 3.00 metres as denoted by the orange serrated line in Figure 3 (following page). Wooden hoarding (as opposed to metal) has a good sound dampening effect and will create an acoustic barrier to shield the area from excess construction noise. It will also create a semi-permanent physical barrier that will inhibit the transfer of construction material to the area around the main sett.

- 3.6 The wooden hoarding will also act as an effective site boundary for construction activities; however, it will be necessary to install a door/access for monitoring the badger sett.
- 3.7 Herras fencing will be installed along the path denoted by the blue serrated line in Figure 3 (below). This has been recommended to provide a pathway for badger access over the short term.

**Plate 1: Example of Wooden Hoarding**



**Figure 3: Wooden Hoarding, Herras Fencing & Prohibition Zones**



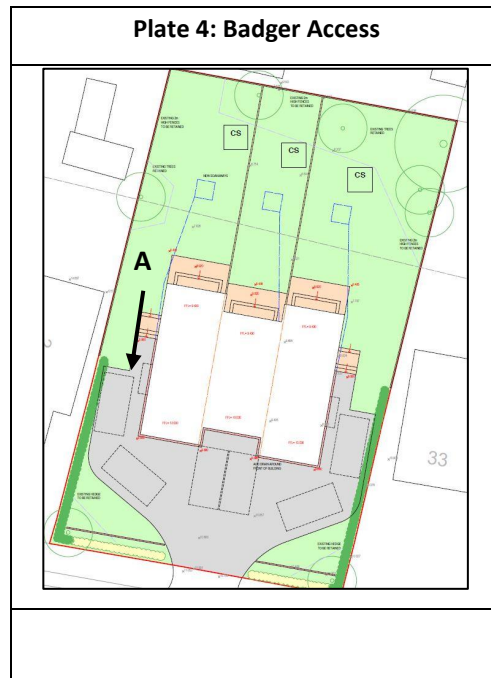
- 3.8 Below-ground disturbance will be avoided by the prohibition of activities within certain areas of the site that are known to cause vibrations and/or increase the risk of a tunnel/chamber collapse (refer to Figure 3, see above).

**Badger Access: Submerged Land Drain/Tunnel**

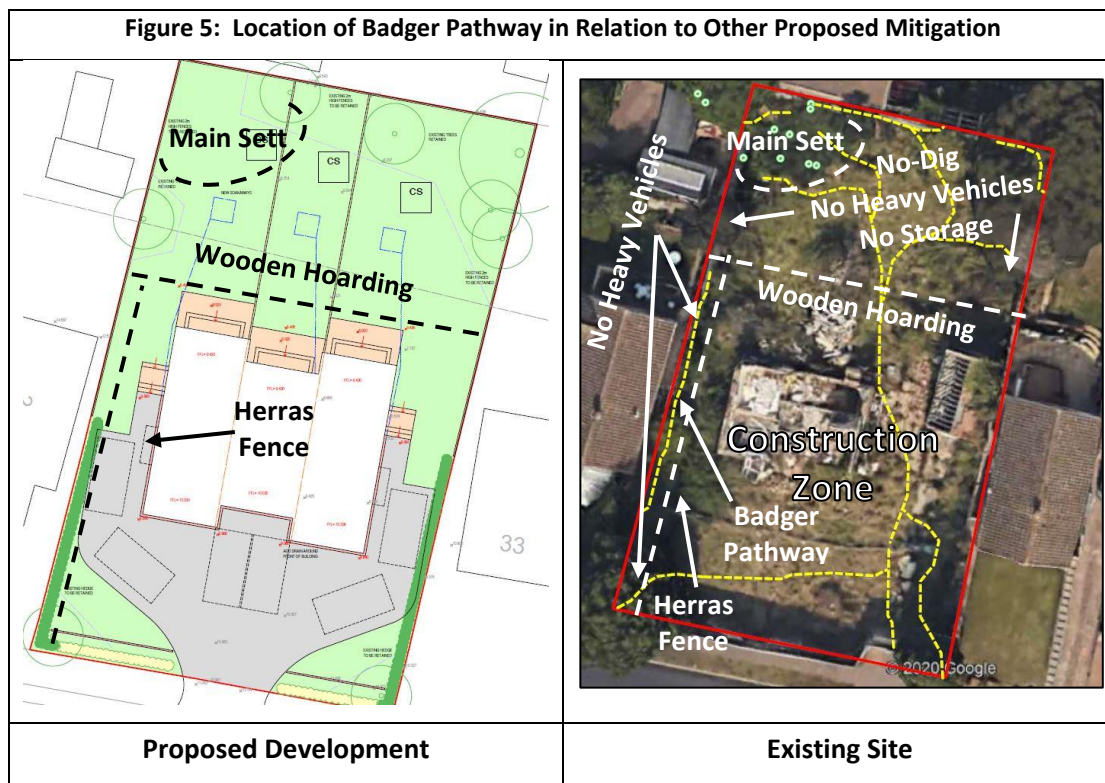
3.9 There is a potential issue with badger access during construction, Point A (refer to Figure 4, right/opposite) denotes an area that will need to be closed for badger access for its construction.

3.10 It is proposed to maintain a badger pathway delimited by Herras fencing to measure a minimum of 2.0 metres of the duration of the construction project until the hard landscaping needs to be completed.

3.11 A notable badger path was recorded during the initial badger survey along the western site boundary. It was later noted that this badger path led from the main sett to the annex/subsidiary sett (proposed for closure). The location of the badger pathway aims to mimic the existing location of the path as much as is possible (refer to Figure 5; below).

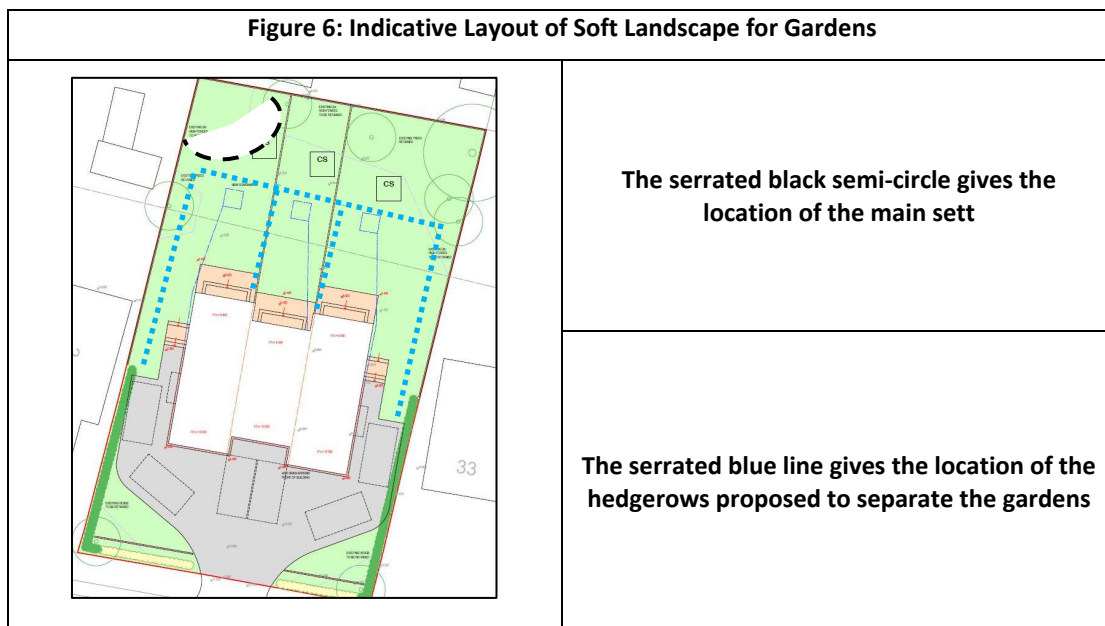


**Figure 5: Location of Badger Pathway in Relation to Other Proposed Mitigation**



**Soft Landscape Proposals**

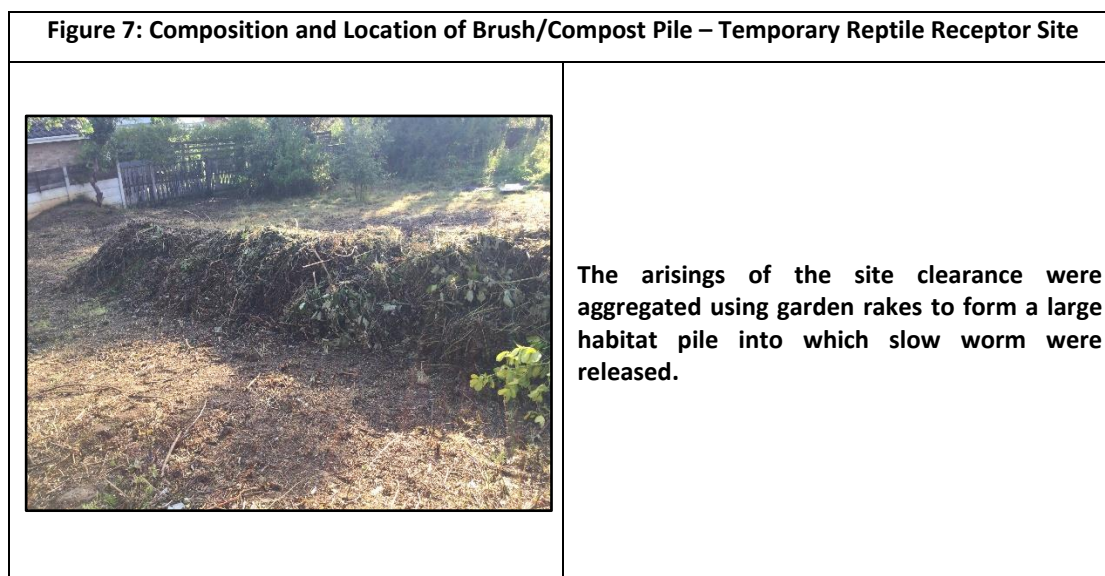
- 3.12 It is proposed to dedicate a c. 5-metre strip of land along the northern section of the site for ecological enhancement. This will ensure that none of the existing badger sett entrances directly access the gardens of the proposed dwellings. It is further proposed to delineate the gardens using hedgerow rather than fencing to minimise any digging and maximise the permeability of the adjacent habitat over the long term (refer to Figure 6; below).



**4.0 MITIGATION STRATEGY: REPTILES**

**Reptile Mitigation Strategy: Short-Term**

- 4.1 A peak count of 17 slow worm, 13 adults, was recorded during the reptile survey and it was noted that they were evenly distributed across the site. A significant area of the site was required to be cleared to facilitate the Ground Penetrating Radar (GPR) survey therefore a short-term mitigation strategy was required to progress. The constraints imposed upon the development by the main badger sett meant that the vegetation clearance had to be conducted in advance of a translocation exercise.
  
- 4.2 The majority of the site was cleared using hand tools over four days (30<sup>th</sup> July, 02<sup>nd</sup> August, 03<sup>rd</sup> August, & 04<sup>th</sup> August 2021) and the arisings were aggregated to form one large brush/compost pile (BCP) (refer to Figure 7; below). The clearance was conducted under an ecological watching brief (Ecological Clerk of Works EcOW) and the brush/compost pile was used as a reptile receptor site into which captured slow worm were released.



- 4.3 The BCP was created along a north/south trajectory in the north-western section of the site (refer to Figure 8; following page). There was a small, continuous amount of habitat around the house that could not be removed until the final demolition. The design of the BCP was such that it would connect to this area and minimise the impact of the site clearance on the slow worm population.

**Figure 8: Location of Brush/Compost Pile – Temporary Reptile Receptor Site**

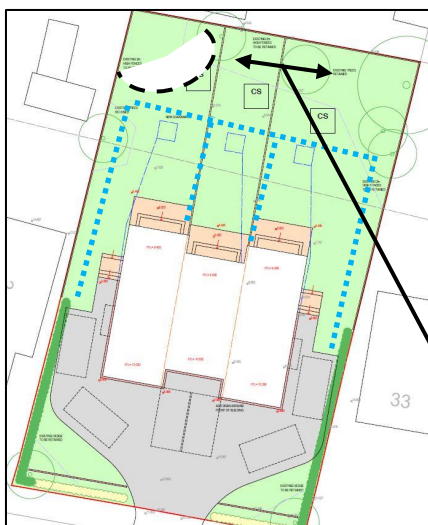


The serrated red arrow indicates the location of the brush/compost pile (north-western section of the site).

**Reptile Mitigation Strategy: Long-Term**

- 4.4 The long-term maintenance of the slow worm population will be maintained by creating habitat within the red line boundary of the site using vegetative arisings, dead wood and bricks collected during the site clearance (refer to Figure 9, below). The habitat will be created in advance of the demolition of the existing house. The demolition will be created under EcOW to capture and release any slow worm encountered during the process.

**Figure 9: Location of Habitat Enhancement Area for Reptiles/Biodiversity**



The serrated black semi-circle gives the location of the main sett

The serrated blue line gives the location of the hedgerows proposed to separate the gardens

The black arrow denotes the area of the site which will be used for habitat enhancement for reptiles and biodiversity.

The arising, dead wood and bricks from site clearance have been saved and will be used to create habitat piles.

## 5.0 MITIGATION STRATEGY: SEQUENCING

5.1 The following list provides the chronological order of the mitigation proposed in this report:

1. Application/Granting of Planning Permission
2. Application for Natural England Licence to Close Annex/Subsidiary Set
3. Closure of Annex/Subsidiary Set
4. Establishment of Reptile/Biodiversity Habitat Area (Figure 9) (Earliest Possible Convenience but BEFORE Demolition)
5. Demolition of Existing Buildings Under Ecological Watching Brief
6. Erection of Wooden Hoarding to Establish Exclusion Zone (Figure 3/Plate 1)
7. Installation of Protective Herras Fence (Figure 3)
8. Monitoring of SLD/Badger Access Using Trail Cameras
9. Construction as limited by the exclusion zone and prohibited activities
10. Establishment of Soft Landscape Strategy After Construction of Dwellings