

ECOLOGICAL METHOD STATEMENT

FOLKESTONE & HYTHE DISTRICT COUNCIL

PRINCES PARADE, HYTHE (FHDC)

PRINCES PARADE

HYTHE, KENT

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1. INTRODUCTION

INTRODUCTION

- 1.1 Lloyd Bore Ltd was instructed to produce a document to address Planning Condition 15, 16 and 17 of the planning permission for Y17/1042/SH Prince's Parade, Hythe.
- 1.2 The scheme comprises the creation of up to 150 residential dwellings with associated parking, up to 1,270sqm of commercial uses (hotel/ retail/ restaurant/ café), hard and soft landscaped open space, and 2,961sqm for a leisure centre with associated parking.
- 1.3 Works on site are split into three development phases, the initial phase seeing the creation of an access road and leisure centre, second phase commercial and residential units on the eastern portion of the site and third phase for commercial and residential development to the west of the site.
- 1.4 This document has been informed by the *Ecological Mitigation and Enhancement Plan* (Lloyd Bore Ltd, 2017), *Ecological Mitigation Strategy* (Lloyd Bore Ltd, 2018a), *Reptile Report* (Lloyd Bore Ltd, 2018b) and *Badger Report* (Lloyd Bore Ltd, 2018c) submitted with the planning application.

ECOLOGICAL METHOD STATEMENT OBJECTIVES

- 1.5 Planning permission was granted on 18th July 2019. The Planning Permission was subject to several Planning Conditions, four of which relate to ecology.
- 1.6 This document has been produced to address Planning Conditions 15, 16 and 17 which state: -

Condition 15:

'Prior to commencement of the development on each relevant phase or sub-phase relating to the planning permission hereby permitted, a preliminary ecological appraisal (PEA) shall be carried out, the results and recommendations of which shall inform a review/ update of detailed mitigation strategy to be submitted as part of condition 16 of this planning permission.'

- 1.7 This document does not include a full Preliminary Ecological Appraisal (PEA) exercise, as this would not be appropriate to the stage of the planning process that the project is currently at. PEAs are typically undertaken at the early scoping / pre-application stage of a project.
- 1.8 However, this document does provide an updated ecological baseline for the site, which is detailed in the *Current Ecological Baseline* section of this document. The current ecological baseline reported in this document is based on the previous (2015 - 2016) baseline survey work undertaken by Lloyd Bore, and update site walkover visits and desktop review work undertaken by Lloyd Bore across spring 2021. This document also sets out how and when further update walkovers will be undertaken, and how the findings of these update walkovers will be reported to planning, prior to the commencement of each phase of the scheme. It is therefore considered that this document adequately addresses the information requirements of Planning Condition 15 in relation to the initial site clearance phase.

Condition 16:

'Prior to commencement of the development hereby permitted (including any ground works, site or vegetation clearance) within any relevant phase or sub-phase, a detailed Ecological Method

Statement (EMS) (informed by the submitted Ecological Mitigation and Enhancement Plan, Lloyd Bore, August 2017; Appendix 4: Scheduled of Environmental Mitigation; Appendix 5: Ecological Mitigation Strategy, Lloyd Bore REF: 3609-LLB-RP-EC-0010-S4-P04 03/07/2018; Appendix 6: Reptile report, Lloyd Bore, REF: 3609-LLB-RP-EC-0011-S4-P01; Appendix 7: Badger Report, Lloyd Bore REF NO. 3609-LLB-RP-EC-0012-S4-P02 03//07/2018) shall be submitted to and approved in writing by the Local Planning Authority. The content of the EMS shall include but not be limited to:

- a) Purpose and objectives for the proposed works, to include the eradication of Japanese knotweed from the site;*
- b) Detailed design(s) and/or working method(s) necessary to achieve stated objectives;*
- c) Extent and location of proposed works, including the identification of a suitable receptor site, shown on appropriate scale maps and plans;*
- d) Timetable for implementation, demonstrating that works are aligned with the proposed phase of construction;*
- e) Persons responsible for implementing the works, including times during construction when specialist ecologists need to be present on site to undertake / oversee works;*
- f) Use of protective fences, exclusion barriers and warning signs;*
- g) Initial aftercare and long-term maintenance (where relevant);*
- h) Disposal of any waste material;*
- i) Interim management plan to ensure habitats created / enhanced as part of the mitigation strategy will be managed appropriately;*
- j) Details of ongoing monitoring.*

The works shall be carried out in accordance with the approved details and retained as required thereafter.'

1.9 This document addresses the above information requirements, but the following points are worth noting at this juncture: -

- No evidence of Japanese knotweed (*Fallopia japonica*) presence has been recorded on site by Lloyd Bore at any time since ecological survey work commenced in 2015 and no evidence of historic presence has been provided. Detailed prescriptions of the eradication of Japanese knotweed from the application site have therefore not been included in this document. However, precautionary measures in relation to this plant species have been included;
- Details of long-term maintenance, habitat management and long-term monitoring of habitats are not included in this document because these details are provided in the associated *Landscape and Ecological Management Plan* (LEMP) that is currently being produced to address Planning Condition 47. This is to avoid unnecessary duplication of information and to ensure that management prescriptions and actions are based on one clearly identifiable management plan document. This document does however include details of construction stage monitoring in relation to retained on-site habitats;

- Detail relating to waste disposal during the construction stage is not included in this document as these measures will be addressed in the Construction Environment Management Plan (CEMP) that is being produced to address Planning Condition 26; and
- Initial, project-critical site investigation works have been undertaken on site in spring 2021 with the express written permission of Folkestone and Hythe District Council (FHDC) and under the direct ecological supervision and guidance of Lloyd Bore. FHDC advised that they do not consider these works to constitute commencement of development and that these essential site investigation works could proceed under ecological supervision and guidance.
- With the express written permission of FHDC, ecological enhancement work has also been undertaken north of the Royal Military Canal (hereafter referred to as RMC) in spring 2021, to create a reptile receptor site ahead of the reptile translocation.

1.10 An update badger survey has also been undertaken to inform the proposed badger mitigation and compensation measures.

1.11 The reptile receptor enhancement works and the results of the update badger survey have also been factored into this EMS.

Condition 17:

'Prior to the commencement of any habitat clearance works in relation to the development hereby permitted, a habitat creation plan shall be submitted to and have been approved in writing by the Local Planning Authority. The habitat creation plan shall clearly set out the habitats which will be created in any relevant phase or sub-phase of the development hereby permitted. The approved plan shall inform the overarching Ecological Method Statement that is required to address Condition 16 of the planning permission and shall be incorporated into that document. Any habitat clearance works in any relevant phase or sub-phase shall only occur in accordance with the approved details.'

1.12 The proposed soft landscaping plans that have been produced for the site detail the habitat retention and creation proposals that will be implemented on site. These proposals have been produced by Mark Hanton Studio Ltd, with input from Lloyd Bore, and are included within the *Habitat Retention and Creation Plans* section of this document. These proposals address the information requirements of Planning Condition 15.

1.13 Lloyd Bore Ltd have previously produced several ecological reports for this project, including: -

- *Ecological Mitigation and Enhancement Plan* (REF: 3609-LLB-RP-Ec-00013-S4-P01)
- *Ecological Mitigation Strategy* (REF: 3609-LLB-RP-EC-0010-S4-P04)
- *Bat Report* (REF: 3609-LLB-RP-Ec-0003-S4-P01)
- *Reptile Report* (REF: 3609-LLB-RP-Ec-0004-S4-P01)
- *Amphibian Report* (REF: 3609-LLB-RP-Ec-0005-S4-P01)
- *Mammal Report* (REF: 3609-LLB-RP-Ec-0006-S4-P01)
- *Breeding Bird Report* (REF: 3609-LLB-RP-Ec-0007-S4-P01)
- *Botany Report* (REF: 3609-LLB-RP-Ec-0008-S4-P01)

- *Badger Report* (REF: 3609-LLB-RP-Ec-0012-S4-P02).
- *Invertebrate Report* (REF: 3609-LLB-RP-Ec-0009-S4-P01).
- *Reptile Report* (REF: 3609-LLB-RP-EC-0011-S4-P01) (survey of candidate receptor site).

1.14 These reports were used to inform this EMS.

ECOLOGICAL OBJECTIVES

1.15 The measures detailed in this document have been designed to address the information requirements of Planning Conditions 15, 16 and 17 and to detail the measures that will be implemented to: -

- Protect retained on-site habitats and the adjacent off-site RMC Local Wildlife Site (LWS) during the construction stage and post-development;
- Maintain the long-term viability of the local common toad (*Bufo bufo*) population;
- Maintain the long-term viability of the local reptile population;
- Provide mitigation and compensation for impacts upon badger (*Meles meles*);
- Maintain the favourable conservation status of the local bat population; and
- Provide new on-site habitats and associated opportunities for invertebrates, amphibians, reptiles, birds, bats, badgers and small mammals including Species of Principal Importance such as hedgehog (*Erinaceus europaeus*).

1.16 The above bullet points form the ecological objectives of this Ecological Method Statement (EMS).

RESPONSIBILITIES

1.17 FHDC currently own the approved development site.

1.18 FHDC are responsible for implementing and funding the on-site mitigation and compensation works that are required during the pre-construction stage, to deliver a development platform that is free of direct ecological constraints. FHDC are also responsible for providing, and funding the enhancement and long-term management of, the off-site reptile receptor site.

1.19 Folkestone and Hythe District Council (henceforth referred to as FHDC) will be responsible for implementing and funding the mitigation, compensation and enhancement measures associated with the construction phase of the approved scheme.

1.20 Responsibility for maintaining and managing on-site habitats and habitat features in their target states will be transferred to FHDC.

1.21 FHDC will remain responsible for maintaining and managing off-site reptile habitats and habitat features.

1.22 Lloyd Bore Ltd have been appointed to advise FHDC on ecological matters in association with the discharge of ecology-related planning conditions, including the measures that FHDC will be responsible for funding and implementing, and are also actively advising BAM Construction Ltd on ecological matters relating to the pre-construction and construction stages of site development. Lloyd Bore are also currently appointed as the Ecological Clerk of Works (ECoW) for the project.

2. CURRENT ECOLOGICAL BASELINE

- 2.1 The current ecological baseline reported below is based on the previous (2015 - 2016) baseline survey work undertaken by Lloyd Bore, and update site walkover visits and desktop review work undertaken by Lloyd Bore across spring 2021.

NON-STATUTORY DESIGNATED SITES

- 2.2 Two LWS are located within 1km of the Site. These are Paraker Wood and Seabrook Stream, Shorncliffe LWS and the RMC LWS. Paraker Wood and Seabrook Stream, Shorncliffe LWS is located c.750m north of the Site at its closest point. The RMC LWS is located adjacent to the northern boundary of the application site.
- 2.3 Based on publicly available information, the RMC LWS is designated for its rare plant species, as well as twelve species of Odonata (dragonflies and damselflies), its bird assemblage, grass snake (*Natrix helvetica*), common toad, foraging pipistrelle (*Pipistrelle* sp.) and Daubenton's bat (*Myotis daubentonii*).

PLANTS AND HABITATS

- 2.4 The adjacent, off-site RMC qualifies as 'Eutrophic standing water,' which is a Habitat of Principal Importance.
- 2.5 A National Vegetation Classification (NVC) survey of the application site was undertaken in June and July 2016 and an update assessment of on-site habitats was completed in March and April 2021. The update walkovers confirmed that the type and extent of on-site habitats has not materially changed since the time of the 2016 NVC survey.
- 2.6 The application site supports four main vegetation community types. These are W1 (*Salix cinerea-Galium palustre* woodland), W24 (*Rubus fruticosus* agg.-*Holcus lanatus* underscrub), OV25 (*Urtica dioica-Cirsium arvense* community), MC9 (*Festuca rubra-Holcus lanatus* maritime grassland).
- 2.7 No Habitats of Principal Importance were identified on the application site.
- 2.8 MC9 grassland occurs within the Habitat of Principal Importance category 'maritime cliff and slopes' (JNCC, 2011). However, to qualify as a Habitat of Principal Importance, MC9 grassland needs to occur on a maritime cliff or slope. Therefore, the grassland habitat on the application site do not fulfil the above criteria.
- 2.9 Bee orchid (*Ophrys apifera*) and pyramidal orchid (*Anacamptis pyramidalis*) were recorded within the MC9 grassland. These species are not Species of Principal Importance, legally protected or listed as 'nationally rare' or 'nationally scarce'. However, these plants are likely to be of amenity value to existing residents of the local area.
- 2.10 The on-site grassland is not characteristic of MC9 grassland communities. However, the on-site grassland community is not common within the immediate local landscape. For this reason, the on-site grassland community is of local botanical importance.
- 2.11 The approved development will result in the loss of this locally important plant community.
- 2.12 Further details of the botanical survey can be found within the *Botany Report* produced in 2017 (Lloyd Bore Ltd, 2017a).

INVASIVE NON-NATIVE SPECIES

- 2.13 Three non-native invasive plant species were recorded within the application site during the NVC survey.
- 2.14 These were giant hogweed (*Heracleum mantegazzianum*), Spanish bluebell (*Hyacinthoides hispanica*) and Japanese rose (*Rosa rugosa*). All three of these plant species are list on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).
- 2.15 In the absence of mitigation, the approved development may lead to the spread of these non-native invasive plants into important local wildlife areas such as the RMC LWS.
- 2.16 No evidence of Japanese knotweed presence was recorded during the 2016 botanical survey or during any subsequent site visits completed between 2016 and present.
- 2.17 Further details of the botanical survey can be found within the *Botany Report* produced in 2017 (Lloyd Bore, 2017a).

INVERTEBRATES

- 2.18 An invertebrate survey and habitat assessment of the site and adjacent canal section was undertaken by Dr Jonty Denton FRES, FLS, CEcol, MCIEEM in May and July 2016.
- 2.19 The application site supports three nationally notable species. These are Lesne's earwig (*Forficula lesnei*), mallow flea beetle (*Podagrica fuscipes*) and a weevil species (*Trichosirocalus dawsoni*).
- 2.20 The herb rich vegetation along the southern boundary supports the nationally scarce weevil (*T.rufulus*), and other local species including bristletail (*Dilta* sp.), lygaeid bug (*Beosus maritimus*) and the leaf beetle *Chrysolina banksi*.
- 2.21 The canal was found to support freshwater invertebrate assemblages including the hairy dragonfly (*Brachytron pratense*).
- 2.22 Further details of the invertebrate survey can be found within the *Invertebrate Report* produced in 2016 (Jonty Denton, 2016).
- 2.23 The MC9 grassland, in particular, supports suitable foodplants for many of the species noted above. In the absence of mitigation, the loss of on-site habitat MC9 grassland habitat to facilitate development will have a locally significant impact on invertebrate assemblages.
- 2.24 In addition, the RMC supports invertebrate assemblages associated with freshwater habitats. Many of these species, including the hairy dragonfly, are sensitive to pollution.
- 2.25 The suitability of the on-site habitats and the RMC for the important invertebrate species described above has not materially changed between 2016 and present.

AMPHIBIANS

- 2.26 Common toad is a Species of Principal Importance.
- 2.27 Two common toad (*Bufo bufo*) amplexus (breeding) and migration checks were undertaken on 16th and 21st March 2016. These checks were undertaken to identify toad mitigation routes towards the RMC and to record any evidence of common toad breeding within the adjacent canal section.

- 2.28 In addition to the above, four full survey visits were conducted over a 14-day period. The survey was undertaken along the southern bank of the RMC adjacent to the approved development site on the 23rd, 27th and 30th March and 6th April 2016.
- 2.29 During the survey period common toad were recorded migrating across the Hythe Imperial Golf Course towards the canal and from the western half of the approved development site to the canal.
- 2.30 A peak number 82 of common toads were recorded within RMC in March 2016. Of these 82 animals, 54 were recorded in the canal section adjacent to Hythe Imperial Golf Course and 28 were recorded directly adjacent to the application site.
- 2.31 Amplexus was recorded in the canal section that is located adjacent to the western half of the approved development site. No amplexus was recorded in the canal section that is located adjacent to the eastern half of the approved development site or the golf course.
- 2.32 Further details of the common toad survey can be found within the *Amphibian Report* produced in 2017 (Lloyd Bore Ltd, 2017b).
- 2.33 The suitability of the on-site habitats and the RMC for common toad has not materially changed between 2016 and present.

REPTILES

APPROVED DEVELOPMENT SITE

- 2.34 A reptile presence / likely absence survey was undertaken between 3rd May and 22nd June 2016.
- 2.35 Slow worm (*Anguis fragilis*), common lizard (*Zootoca vivipara*) and grass snake were confirmed as present on site. A 'good' population of both slow worm and common lizard and a 'low' population of grass snake were recorded during the survey. Most reptiles were recorded within the grassland and low bund / embankment on the southern edge of the approved development site and in the area of grassland at the western end of the approved development site.
- 2.36 Based on the survey results, the survey area is of 'local' importance for slow worm, common lizard and grass snake.
- 2.37 Further details of the reptile presence / likely absence survey of the approved development site is provided in the *Reptile Report* produced in 2017 (Lloyd Bore Ltd, 2017c).
- 2.38 The suitability of the on-site habitats for reptiles has not materially changed between 2016 and present.

PRIMARY REPTILE RECEPTOR SITE

- 2.39 To better assess the reptile carrying capacity of the off-site Primary Reptile Receptor Site (which comprises sections of suitable habitat totalling c.0.67ha on land adjacent to the northern bank of the RMC, between the application site and Twiss Road), a reptile presence / likely absence survey of this area was undertaken in May 2018.
- 2.40 The survey aim was to establish whether reptiles are present within the Primary Reptile Receptor Site and to inform an estimated population size class if reptile presence was confirmed and inform an assessment of the then current (2018) and potential future reptile carrying capacity of this area.

- 2.41 The presence / likely absence survey recorded a peak count of three adult grass snakes within the survey area, indicating the presence a 'low' population of grass snake.
- 2.42 Based on the survey results, the survey area is of 'local' importance for grass snake.
- 2.43 A likely absence of slow worm and common lizard was recorded.
- 2.44 The reptile survey indicated that the Primary Reptile Receptor Site supported habitat suitable for reptiles, and that the area could be enhanced to increase the carry capacity of existing habitat.
- 2.45 Habitats within the Primary Reptile Receptor Site have been enhanced for reptiles through the removal of some shading trees, dense scrub and ruderal vegetation, sowing of grass seed and the addition of log piles. A walkover survey was undertaken on 24th May 2021 to assess the condition of the Primary Reptile Receptor Site habitats. It was concluded that the extent of suitable reptile habitat present within the Primary Reptile Receptor Site has increased across spring and summer 2021 as a consequence of the enhancement works but that this does not yet provide a sufficient extent of good quality reptile habitat to allow translocation to commence yet. Reptiles will therefore now be translocated to the Secondary Reptile Receptor Site.

SECONDARY REPTILE RECEPTOR SITE

- 2.46 A Secondary Reptile Receptor Site, measuring c.0.74ha in size, has been secured to allow translocation to proceed in 2021 in the event that the Primary Reptile Receptor Site is not sufficiently well established to allow translocation to commence in August 2021.
- 2.47 This receptor site comprises the cemetery located at the western end of Spring Lane, Hythe (approx. central grid reference: TR 1816 3557).
- 2.48 The suitability of the Secondary Reptile Receptor Site for reptiles was assessed by Lloyd Bore in early spring 2021. At the time of this initial assessment, the cemetery was dominated by habitat of low suitability for reptiles (closely mown grassland, but with a botanically mature and diverse sward composition, with small areas of moderate suitability habitat present around the cemetery margins, including some rubble piles and fallen timber and brash that provide some suitable shelter and hibernation opportunities for reptiles).
- 2.49 The cemetery is well connected to an extensive wider local network of habitats (woodland, grassland and scrub) that are of good suitability for reptiles and it was determined that the suitability of habitats within the cemetery could be rapidly improved by the cessation of mowing, to allow a taller, more structurally complex grass and forb sward to develop - to provide enhanced shelter, foraging and basking opportunities for reptiles; and the addition of log piles and hibernacula to provide new shelter, hibernation, basking and foraging opportunities.
- 2.50 Due to the predominance of low suitability habitats that offered negligible refuge, shelter and hibernation opportunities for reptiles and only limited foraging opportunities, no reptile presence / likely absence survey of the cemetery site was considered necessary or possible.
- 2.51 A subsequent walkover survey was undertaken on 24th May 2021 to assess the condition of the Secondary Reptile Receptor Site habitats. The suitability of habitats present across the entire c.0.74ha cemetery site has improved substantially since the cessation of mowing and the entire site was then assessed as being of moderate suitability for reptiles. The suitability of the site for reptiles has subsequently further increased.

- 2.52 The suitability of these habitats was enhanced in June 2021 through the addition of log piles and hibernacula and as the grassland sward continues to develop.
- 2.53 Given the relatively short time between cessation of mowing and commencement of translocation, it is highly unlikely that the cemetery site has yet been colonised by any substantial reptile population and therefore the carrying capacity of these recently enhanced habitats is likely to be more than sufficient to accommodate the reptiles that are to be translocated from the approved development site.
- 2.54 This Secondary Reptile Receptor Site is therefore considered suitable for receipt of reptiles translocated from the approved development site, commencing in August 2021.

BREEDING BIRDS

- 2.55 Five breeding bird survey visits were undertaken on-site between April and June 2016. The transect route followed the entire boundary of the application site and also took into account the adjacent canal.
- 2.56 In total, 39 species of bird were recorded during the five survey visits. Of the species that use the site, six are Species of Principal Importance and two are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). These are herring gull (*Larus argentatus*), yellow wagtail (*Motacilla flava*), dunnock (*Prunella modularis*), house sparrow (*Passer domesticus*), linnet (*Carduelis cannabina*) and reed bunting (*Emberiza schoeniclus*).
- 2.57 In addition, of the species that use the site, ten species were recorded as 'confirmed breeders'. These were mute swan (*Cygnus olor*), woodpigeon (*Columba palumbus*), blackbird (*Turdus merula*), long-tailed tit (*Aegithalos caudatus*), Whitethroat (*Sylvia communis*), reed warbler (*Acrocephalus scirpaceus*), Magpie (*Pica pica*), Starling (*Sturnus vulgaris*), house sparrow and reed bunting.
- 2.58 Further details of the breeding bird survey can be found within the *Breeding Bird Report* produced by Lloyd Bore in 2017 (Lloyd Bore Ltd, 2017d).
- 2.59 The suitability of the on-site habitats and the RMC for breeding birds, including the important species recorded during the 2016 survey, has not materially changed between 2016 and present.

BADGER

- 2.60 An initial site walkover was undertaken in March 2015. Four badger setts (Setts A, B, C and D) were recorded on the application site.
- 2.61 All four setts were monitored over a period between March and June 2018. The results of the 2018 surveys indicated that two setts (B and C) were in 'current use' by badgers.
- 2.62 Images from the camera trap positioned at Sett B showed a badger cub using the sett entrance. The presence of a badger cub confirms Sett B as a breeding sett.
- 2.63 Further details of this badger monitoring survey can be found in the *Badger Report* produced by Lloyd Bore in 2018 (Lloyd Bore, 2018).
- 2.64 Badger monitoring surveys of Setts A and B were continued in 2019. Camera traps were set out at Sett A between May and July 2019. Camera traps were set out at Sett B between July and October 2019.

- 2.65 The results of the 2019 monitoring badger survey found that Sett A was in use by red fox (*Vulpes vulpes*). A vixen and her cubs were consistently captured on camera traps throughout the monitoring visit. No badgers were captured on camera traps on Sett A during the 2019 monitoring survey.
- 2.66 Badgers were captured on camera trap using the sett entrances for Sett B consistently throughout the monitoring survey. This indicates that the sett was still in use by badger.
- 2.67 All on-site setts were revisited in March 2021. The breeding sett (Sett B) showed signs of recent badger activity. The disused sett (Sett A) did not have any signs of recent badger activity and is still regarded as disused. No evidence of badger activity was recorded on Sett C and Sett D could not be located due to dense vegetation growth and an absence of obvious badger field signs, including paths / runs leading into this dense scrub (indicating that Sett D is not in use by badgers).
- 2.68 A bait marking survey was undertaken on the breeding sett (Sett B) in April / May 2021 to identify the extent of the resident badger clan's territory following industry standard guidance and good practice. The survey was led by Richard Andrews BA (Hons)/MA Cantab, CEnv, MCIEEM, who has over 20 years of badger survey experience and has authored guidance on badger survey.
- 2.69 Badger field signs, including setts and latrines were mapped across the approved development site, Hythe Imperial Golf Course and wider canal corridor. No badger setts were identified beyond the site boundary within the canal corridor. A new sett, Sett E was located during the regular searches for field signs, this was classed as an outlier sett in current use by badger.
- 2.70 Food grade coloured marker pellets were then mixed with a pre-made bait of peanuts, molasses and other suitable foodstuffs and left in 'bait balls' within / adjacent the entrances of Sett B. Multiple survey visits were then undertaken, searching for badger latrines.
- 2.71 The bait marking survey recorded the purple marker pellets that has been deposited in bait balls at Sett B within a badger latrine within the western half of the Hythe Imperial Golf Course. This survey result indicates that the territory of the badger social group that utilises Sett B as a main / breeding sett extends at least as far as the western section of the Hythe Imperial Golf Course and that other badger social groups are unlikely to be present on the southern side of the RMC between the eastern end of the approved development site and Twiss Road to the west.
- 2.72 In addition, badger faeces containing the same purple marker pellets were recorded on the footbridge that connects Seabrook Road and Princes Parade (in line with the centre of the application site), indicating that the territory of the on-site badger social group may also extend to the northern bank of the canal (or the bridge may represent a territorial boundary, although latrines were not numerous in the survey area, suggesting the absence of a territorial boundary).
- 2.73 Camera traps were set out at both setts (A and B) in May 2021 to monitor activity levels. Sett B has been confirmed as still in 'current use' by badger and is still considered to be the main / breeding sett of the badger social group that utilise the approved development site. No evidence of badger activity was recorded at Sett A, which is considered to still be not in current use by badger.
- 2.74 Across the badger survey works undertaken, little evidence of badger activity has been recorded on the wider approved development site; with the embankment located within the north of the site being the location where most badger field signs, including setts, have been identified, and some occasional evidence of badger use of the southern maritime grassland for foraging. The apparent absence of badger field signs from the remainder of the wider approved development site could be

due to the presence of dense vegetation, obscuring field signs, or due to the presence of more productive foraging habitats within the canal corridor.

BATS

- 2.75 A bat activity survey was undertaken between May and September 2016. This survey covered the application site and adjacent section of the RMC.
- 2.76 In addition, static detectors were positioned on the application site and the adjacent canal section in June, August and September 2016.
- 2.77 A total of eight bat species were confirmed using the canal and margin habitats. These species were common pipistrelle (*Pipistrellus pipistrellus*) soprano pipistrelle (*P.pygmaeus*), Nathusius' pipistrelle (*P.nathusii*), noctule (*Nyctalus noctula*), serotine (*Eptesicus serotinus*), Leisler's (*N.leisleri*) and brown long-eared (*Plecotus auritus*) and Daubenton's bat (*Myotis daubentonii*).
- 2.78 The activity survey confirmed that Daubenton's bat and common pipistrelle used the canal regularly for foraging.
- 2.79 The results from the activity survey and static detectors indicate that bat activity was considerably higher along the canal and its marginal habitat than on the approved development site.
- 2.80 The canal and marginal habitats are of county importance for foraging bats.
- 2.81 The approved development site is of Zone of Influence (ZoI) level of importance for foraging bats.
- 2.82 Further details of the activity survey can be found within the *Bat Report* (Lloyd Bore Ltd, 2017e).
- 2.83 The suitability of the on-site habitats and the RMC for foraging and commuting bats, including the species recorded during the 2016 survey, has not materially changed between 2016 and present.

OTHER MAMMALS

- 2.84 American mink (*Neovision vision*) was captured on camera traps during the badger monitoring survey in 2019, confirming the presence of American mink along the RMC. This species is a non-native, invasive, predatory mammal listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).
- 2.85 The approved development site provides suitable cover, foraging, nesting and hibernation opportunities for hedgehog. Existing large mammal burrows provide the most suitable hibernation sites.
- 2.86 Occupied rabbit (*Oryctolagus cuniculus*) burrows and fox dens have been recorded on site as recently as March 2021.

3. WORKS PHASING

- 3.1 This assessment is based on the following sequencing and timescales / phases for the approved development, as provided by Hadron Consulting.
- 3.2 Prior to the start of Phase 1, ecology work is being undertaken on site. For ease, within this report this phase on the project will be referred to as the 'Ecological Phase.'
- 3.3 The ecological enhancement work for this project restarted in February 2021.

ECOLOGICAL PHASE: FEBRUARY 2021 TO DECEMBER 2021

- Reptile mitigation, including translocation the creation and enhancement of off-site receptor areas
- Compensatory badger sett creation and closure of existing badger sett
- Site clearance / destructive search

PHASE 1: FEBRUARY 2022 TO SEPTEMBER 2023

- Construction of road
- Realignment of Prince Parade and construction of western car park
- Relocation of existing rising main along realigned Princes Parade
- Provision of new promenade
- Construction of leisure centre and carpark
- Installation of planting along the embankment that forms the northern edge of the approved development site Creation of the Western Open Space linear park.

PHASE 2: OCTOBER 2022 TO FEBRUARY 2024

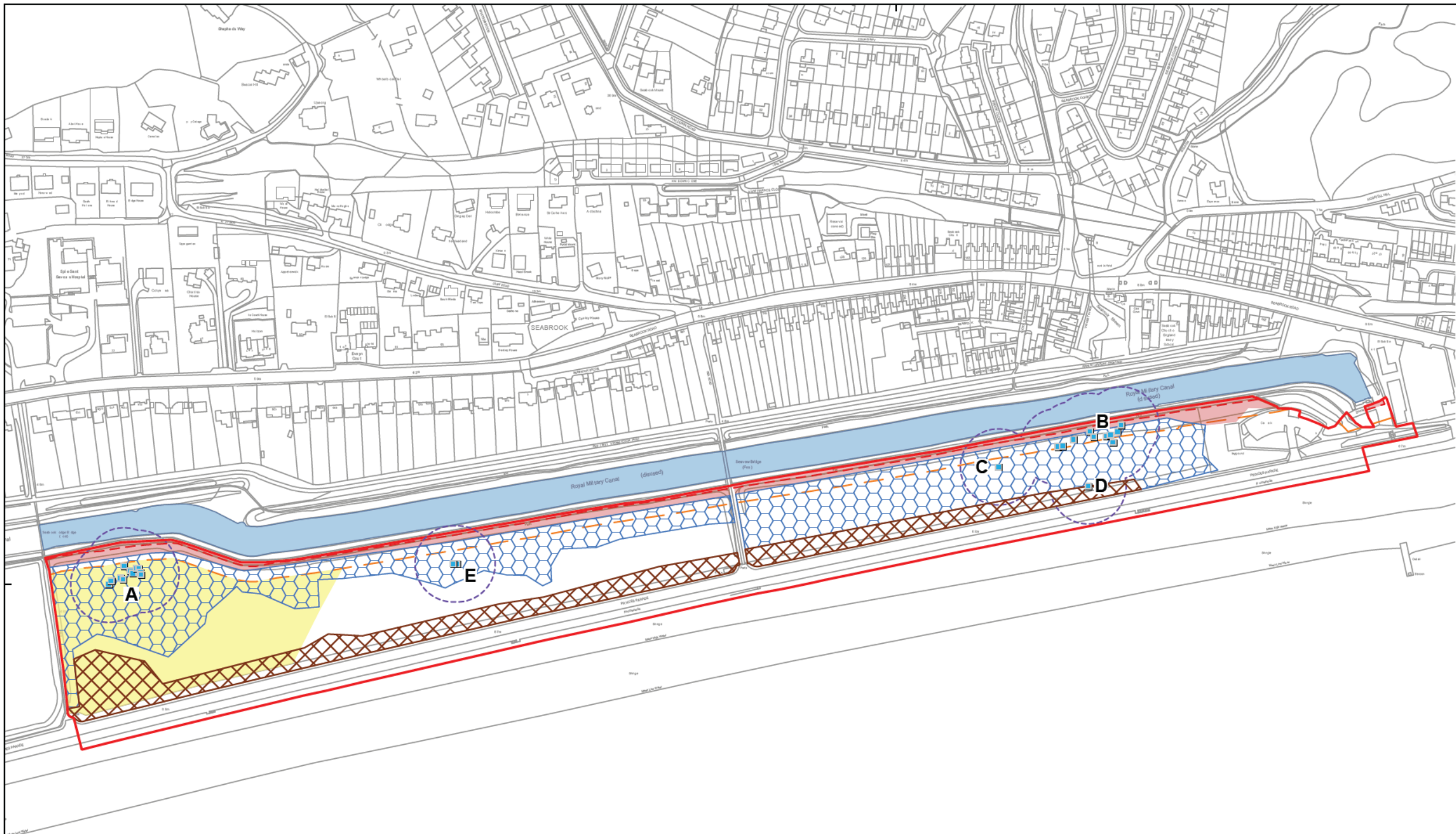
- The construction of the eastern residential / commercial plot and central open space.

PHASE 3: MARCH 2021 TO AUGUST 2024











- The construction of the western residential / commercial plot.

4. ECOLOGICAL CONSTRAINTS PLAN

- 4.1 The *Ecological Constraints Plan* provided overleaf provides a spatial representation of the ecological constraints present on site prior to the commencement of development works.
- 4.2 The measures set out in the *Ecological Method Statement* section of this document have been developed in response to the presence of these ecological constraints.



LEGEND

-  Royal Military Canal
-  8m offset from the Royal Military Canal
Environment Agency permit will be required for works within this zone
-  20m offset from the Royal Military Canal
Ecological Clerk of Works to provide method statement and, if required, direct supervision for any works within this zone
-  Existing badger sett entrance
There are four badger setts within the redline boundary. These setts were monitored in 2019 and were given the following status:
 - Sett B- Active
 - Sett C- Active
 - Sett D- possible badger sett
 - Sett A- Disused
 Further badger survey work, including sett monitoring, is underway to provide updated information on sett status, to inform the detail of the Natural England badger mitigation licence application. All works within 30m of badger setts that could result in legally significant impacts upon badgers / badger setts will be undertaken under licence from Natural England, in accordance with the conditions of the granted licence.
-  30m works exclusion zone around existing badger setts
-  Critical Badger Foraging Habitat
Retention of existing vegetation has been prioritised in this area and along the northern embankment wherever possible, to ensure that badger foraging habitat and cover for the proposed compensatory artificial badger sett and for Sett A remains available throughout site development. Some soft landscaping has been proposed within this area to deliver an ecological enhancement and some hard landscaping will be present to deliver essential infrastructure (car park on southern edge of site). Further details of habitat retention are provided in the soft landscaping proposals for the site.
-  High Quality Bat Foraging Habitat
Dense scrub cover and adjacent canal habitat provides 'high' quality bat foraging habitat. This area will be maintained as a dark corridor. No artificial lighting in this area.
-  Bird Nesting Habitat
Vegetation clearance within these areas during nesting bird season (March to Mid-September, inclusive) will be minimised wherever possible, and will only be undertaken within this period if required to facilitate works. If any vegetation clearance is required during this period, a nesting bird check will be undertaken by a suitably experienced ecologist. If an active bird nest is found, it will be left in-situ until it is no longer in use by nesting birds.
-  Confirmed Reptile Habitat
Slow worm, common lizard and grass snake were recorded in these areas during 2017 reptile survey. These areas provide foraging, refuge, basking and hibernation opportunities for reptiles. Reptiles will be trapped from these areas and translocated to an off-site receptor site located either on the northern bank of the Royal Military Canal or at Spring Lane Cemetery, Hythe.
-  Site Boundary

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rev. rev. date author rev. date
 P01 29.05.21 SD Initial Issue
 P02 11.08.21 SD Minor amendments in accordance with additional survey in construction.

rev. rev. date author rev. date

client: **Folkestone & Hythe District Council**
 project: **Princes Parade, Hythe (FHDC)**
Princes Parade
Hythe, Kent

drawing no. **3609-LLB-XX-XX-DR-EC-0010** rev. **P02**
 drawing title: **Ecological Constraints Plan** suit. **S4**

rev. date: **11/08/2021**
 scale: **NTS**
 sheet: **A3**
 drawn: **DM**
 checked: **SD**



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5. ECOLOGICAL METHOD STATEMENT

NON-STATUTORY DESIGNATED SITES AND HABITATS OF PRINCIPAL IMPORTANCE

- 5.1 A minimum 8m buffer of existing vegetation will be maintained between the development footprint and the RMC throughout the construction and occupation stages of the approved development. The project ecologist has worked closely with the client design and planning team and the appointed contractors (BAM Construction Ltd) to maximise the retention of existing vegetation on the embankment that forms the northern edge of the approved development site. The extent of retained habitat is shown on the *Habitat Retention and Creation Plans* included in this document.
- 5.2 The development within the eastern section of the site will be more than 15m from the RMC. The new road will be approximately 15m from the RMC. The residential area within the eastern section will be approximately 25m from the RMC.
- 5.3 Some vegetation along the upper half of the embankment that forms the northern part of the approved development site, at the eastern end of the site, will be cleared during works to facilitate the installation of retaining structures for the new road. However, this clearance will not intrude on the minimum 8m buffer from the canal bank top, new tree and scrub planting will be created in this area once work has been completed and these plantings will be maintained in the long-term.
- 5.4 To prevent airborne pollutants entering the RMC LWS during the construction stage of the scheme, Heras fencing fitted with debris netting (or site hoarding) will be installed along the northern boundary. In addition, robust pollution prevention and control measures will be adopted and implemented for the duration of the construction period to minimise the risk of pollution of the canal through the transmission of air or waterborne pollutants from the development site. Full detail of these measures will be provided in the CEMP that is being produced to address Planning Condition 26 and is not repeated here.
- 5.5 There is a risk that pollutants will enter RMC LWS post-development through surface run-off.
- 5.6 The hybrid planning application examined two potential drainage strategies, one draining into the canal and one draining onto the beach. Both of these strategies were subject to EIA screening and considered acceptable in environmental terms. The planning application as approved included a drainage strategy into the canal. Subsequent to the planning application being approved this strategy has now been re-visited and a strategy for draining onto the beach is now proposed.
- 5.7 This update strategy has not been approved yet and a stand-alone detailed planning application is due to be submitted in August 2021. The following is a summary of the proposed new strategy.
- 5.8 The drainage strategy (Peter Radmall Associates, 2019) incorporates a Sustainable Drainage System (SuDS) which sub-divides the development site into five separate drainage catchments that manage water run-off from impermeable areas before being discharged at a restricted rate to the adjacent beach via three separate outfalls.
- 5.9 The drainage catchments will use permeable paving to drain water run-off either into lined underground storage tanks or a 1m deep layer of lined open graded sub-base to ensure that there is no interaction between any leachates and surface water.

- 5.10 Run-off from the new trunk road, public parking areas and new promenade will be drained directly to the beach.
- 5.11 The drainage strategy design also incorporates additional storage for water run-off through the delivery of a ground detention basin above one of the storage tanks - to cater for the extreme rainfall events, with overflows to allow excess water to be directed towards the beach if the detention basin reaches maximum capacity.
- 5.12 If the above measures, in combination with those described below in relation to habitat retention and creation and in relation to control of artificial lighting, are effectively implemented, it is anticipated that the ecological integrity of the RMC LWS and Habitat of Principal Importance can be maintained and no significant adverse ecological effects upon this LWS / Habitat of Principal Importance are predicted.

PLANTS AND HABITATS

- 5.13 Sections of retained vegetation will be present within the western open space (areas of existing scrub) and along the embankment that forms the northern edge of the approved development site. These areas will be protected throughout site development.
- 5.14 Vegetated areas along the southern and central areas of the site will be cleared for development following the completion of the reptile, amphibian and badger mitigation measures set out below.
- 5.15 New plantings of native tree and shrub planting will be delivered along the northern edge of the site to enhance the extent and diversity of the woody vegetation corridor, further buffer the canal and buffer the proposed new compensatory badger sett location.
- 5.16 In addition, once the clearance and capping of the western end of the site (excluding the existing vegetation that will be retained) and along the northern half of the site has been completed, new habitat will be created within the western open space and linear park, comprising a tall, flower-rich coastal grassland and new native tree and shrub plantings. The creation of the new coastal grassland habitat will, in the long-term, indirectly compensate for the loss of maritime grassland from the southern edge of the site. The seed mix for the new coastal grassland areas will include species recorded within the pre-clearance maritime grassland wherever possible.
- 5.17 Further detail of habitat retention and creation proposals for the site are provided in the *Habitat Retention and Creation Plans* section of this document. The drawings included in that section set out the habitat types and extents that will be retained and created on site.
- 5.18 If the measures set out above and in the *Habitat Retention and Creation Plans* section of this document and in the associated LEMP document are effectively implemented, it is anticipated that the adverse effect upon habitats of local importance (maritime grassland) can be addressed and the east-west ecological functionality of the site for important species will be largely retained.

RETAINED ON-SITE HABITATS

Areas of retained vegetation around the badger sett and along the bank will be left undisturbed during the interim periods between phases. This is to minimise disturbance effects on badger using these habitats, the existing cover providing the shelter this species requires. In order to maximise the use of this sett, normal pre-construction and construction stage protective measures such as fencing will be minimised, and instead a combination of marking tape and wildlife hazard signs will be used to indicate that the area is to remain untouched by construction activities.

Regular checks of the site by the Ecological Clerk of Works, across the construction stage, will include a check of the effectiveness of the sett protection measures and determine whether any additional protection measures need to be implemented.

INVASIVE FLORA

- 5.19 Three stands of giant hogweed have been found on site and are undergoing treatment under a specialist non-native invasive species control company.
- 5.20 During site clearance work, soil in areas where giant hogweed has been recorded (by Lloyd Bore and by FHDC) will be cleared under the direct supervision of a suitably experienced invasive plant specialist.
- 5.21 Any excavated material that contains (or is likely to contain) giant hogweed will either be securely stockpiled on site in a location away from and separated from the works footprint or taken off site for disposal at a landfill. These works will be undertaken under the direct supervision of a suitably experienced invasive plant specialist, in accordance with a works-specific method statement produced for each aspect of the hogweed remediation works.
- 5.22 If giant hogweed reappears on-site during either the construction stage or post-development, it will be managed accordingly, by a suitably experienced invasive plant specialist.
- 5.23 The methods of control would include the removal of seed heads, taproot cutting, hand pulling, mowing of young plants and/or herbicide control.
- 5.24 Giant hogweed poses a significant risk to human health and therefore, any giant hogweed management operations will need to be carried out by an experienced professional.
- 5.25 As a precaution, prior to the commencement of site works, all site personnel should be briefed on the identification of Japanese knotweed and any invasive plant species identified through the botanical survey. This briefing could be delivered through a Toolbox Talk.
- 5.26 If Japanese knotweed, or any other plant listed on Schedule 9 of the Wildlife and Countryside Act, is discovered on site prior to or during works, all works within 7m of the plant(s) should cease immediately and a suitably experienced specialist should be contacted for advice.

INVERTEBRATES

- 5.27 The nationally scarce weevil and 'local' species including the bristletail species *Dilta hibernica / littoralis*, lygaeid bug and the leaf beetle were found within the on-site southern grassland strip.
- 5.28 New grassland will be created in the Western Open Space and can be managed to provide suitable habitat for nationally scarce invertebrates. Therefore, the new grassland will include plant species commonly associated with maritime grassland such as English stonecap (*Sedum anglicum*), sea thrift (*Armeria maritima*) and sea campion (*Silene uniflora*).
- 5.29 By planting a seed mix specific to coastal grassland within the Western Open Space the provision of foodplant for invertebrate assembles commonly found in maritime grassland will be maintained in the local area in the long term. Therefore, no significant adverse effects upon the coastal invertebrate assemblage are activated in the long-term, although adverse effects may occur for individual species due to habitat change and time lag between habitat clearance and creation.

COMMON TOAD

- 5.30 Whilst common toad does not receive specific legal protection, it is listed as an SPI under Section 41 of the Natural Environment and Rural Communities Act 2006 (as amended).
- 5.31 Under Section 40 of the same Act, it is stated that the local authority must, *'in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.'* Consideration of impacts upon SPIs is relevant to this requirement.

AVOIDANCE

- 5.32 The retention of vegetation on the embankment that forms the northern edge of the approved development site will retain the best quality toad terrestrial habitat in the locations most likely to be regularly used by common toad for foraging, shelter and hibernation.
- 5.33 However, some use of the wider site is likely and, for this reason, direct impacts upon common toad terrestrial habitat cannot be completely avoided.

MITIGATION

- 5.34 In the absence of mitigation, there is a high risk that works undertaken during the construction stage will result in the killing and injury of individual common toads. Works could also result in the pollution of and/or physical impacts upon the recorded common toad breeding site (the RMC).
- 5.35 To minimise these risks, mitigation measures will be adopted and implemented.
- 5.36 On-site habitats will be cleared under ecological supervision, which will help to minimise the killing and/or injury of common toads during the construction stage. Any common toads discovered during clearance (or during the pre-clearance reptile trapping visits) will be translocated to suitable habitat adjacent to the north side of the RMC and the Primary Reptile Receptor Site. The numbers of toads moved in this way will be considered with the total carrying capacity for the translocation site for both toads and reptiles.
- 5.37 Prior to the start of construction, herpetile (reptile and amphibian) exclusion fencing will be installed along the northern, eastern and western boundaries of the Site. This will help to minimise the risk of common toads entering works areas.
- 5.38 The risk of impacts upon common toad habitat (terrestrial and aquatic) outside of the Site during the construction stage will be minimised through implementation of the measures outlined in the *Non-Statutory Designated Sites and Habitats of Principal Importance* section, above.
- 5.39 The pollution prevention and control measures outlined for the LWS will also minimise the risk of damage and/or pollution of off-site common toad terrestrial and aquatic habitats.
- 5.40 Additional detail of construction-phase habitat protection, and pollution prevention and control measures will be provided in the CEMP, which will be submitted to address Planning Condition 26.
- 5.41 The proposed development will deliver an amphibian-friendly road and drainage scheme, through inclusion of features such as wildlife or ACO (ACO is the manufacturer) kerbs and slit drains or other amphibian-friendly drainage solutions.

- 5.42 This will minimise the risk of killing / injury of common toads during the operational stage. A detailed specification for the amphibian-friendly road design will be confirmed at the Reserved Matters stage.
- 5.43 With the inclusion of pollution interceptors on drainage outflows, the design of the proposed drainage scheme will minimise the occupation-stage risk of contamination of the canal, which is a common toad breeding site.
- 5.44 New compensatory habitats suitable for common toad will be delivered in Phase 1 of the construction stage to help compensate for the loss of existing habitats.
- 5.45 At least 0.8ha of new compensatory habitats suitable for common toad (scrub and tall grassland) will be delivered within the Western Open Space and new habitats will be created in the Linear Park, as soon as possible after site clearance. These new habitats will provide foraging and shelter opportunities for common toad close to the recorded breeding site (RMC). This habitat will be created during Phase 1 of the construction stage.
- 5.46 Amphibian refugia piles and hibernacula will be installed within the new terrestrial habitats closest to the RMC and away from the new road. The design of the hibernacula is described within the *Reptiles* section below.
- 5.47 The above will not fully compensate for the loss of common toad terrestrial habitat from the Site. However, the above will ensure that new terrestrial habitat suitable for common toad, and new refuge and hibernation opportunities, are provided close to the recorded breeding site.
- 5.48 The new habitats will be managed to ensure that they continue to provide foraging and shelter opportunities for common toad post-development. Management operations will be designed to minimise the risk of killing or injury of common toads.
- 5.49 Management prescriptions will be confirmed in the detailed LEMP, which is being produced to address Planning Condition 47.

REPTILES

- 5.50 The approved development will result in the loss of c.1.4ha of suitable reptile habitat. The application site has a 'good' population of slow worm and common lizard and a 'low' population of grass snake, as confirmed during the reptile surveys undertaken in June 2016.
- 5.51 The legislation and offences below are relevant to the proposed works.
- 5.52 All four common reptile species are afforded legal protection from intentional and reckless killing and injury by the Wildlife and Countryside Act 1981 (as amended).
- 5.53 Actions affecting multiple animals can be construed as separate offences and therefore penalties can be applied per animal impacted.
- 5.54 All reptiles and amphibians held in captivity are legally protected by the Protection of Animals Act 1911 (as amended) and adder (*Vipera berus*) is listed on the Dangerous Wild Animals Act 1976 (as amended). This may be of relevance during reptile translocation works. However, adder was not recorded during survey work.
- 5.55 Licences are not required to capture and move the four most common UK reptile species (slow worm, common lizard, grass snake and adder).

- 5.56 The Wildlife and Countryside Act (1981) includes certain defences that may apply in some specific circumstances.
- 5.57 Common toads migrate across the western section of the site. However, some vegetation along the western section of the site will be retained. Therefore, the migratory routes for common toad will not be impacted during the construction stage and will be retained in the long-term.
- 5.58 An off-site reptile receptor area - the Primary Reptile Receptor Site, has been created within the RMC corridor to the east of the site.
- 5.59 To enhance the site for reptiles, trees and scrub were cut back in early spring 2021 to create sunny banks. These banks were seeded to create new grassland areas and new log piles were created throughout this area. The enhancement works were undertaken in March 2021.
- 5.60 These areas will be managed in the long-term to create tussocky grassland habitat.
- 5.61 Through the implementation of the above habitat enhancement measures, the Primary Reptile Receptor Site will in time provide extensive new areas of good quality reptile habitat. However, at the time of writing (late May 2021), this area is not sufficiently well established to allow translocation of reptiles to commence in July 2021.
- 5.62 On the basis of the above and based on the details reported in the *Current Ecological Baseline* section in relation to the Secondary Reptile Receptor Site, it is likely that reptiles from the approved development site will now be translocated to the Secondary Reptile Receptor Site, commencing in July 2021.
- 5.63 However, monitoring of the Primary Reptile Receptor Site will continue across June 2021 and in the event that the Primary Reptile Receptor Site is assessed, by a suitably experienced ecologist, as being sufficiently well established to allow translocation to this area to proceed, the project will revert to use of the Primary Reptile Receptor Site.

REPTILE MITIGATION METHOD

- 5.64 In the absence of mitigation, there is a high risk that works undertaken during the construction stage would result in the killing and injury of individual reptiles.
- 5.65 To mitigate against the risk of killing and injury of individual reptiles, a programme of reptile trapping and translocation will be undertaken.
- 5.66 This will involve the capture of reptiles from the site by suitably experienced ecologists and the translocation of captured animals to an off-site receptor site (see *Reptile Receptor Site Location Plan* for locations of Primary and Secondary Reptile Receptor Sites).
- 5.67 Reptile trapping, and translocation will be completed before the commencement of Phase 1 of the construction stage. Additional detail is provided below.

Preliminary vegetation manipulation works

- 5.68 To facilitate effective capture of reptiles, some initial vegetation manipulation works will be required to allow installation of the reptile and amphibian exclusion fence (see *Ecological Protection Plan* for location and extents of this fencing) and to increase the amount of edge habitat present within trapping compartments, which allows easier capture of reptiles by encouraging them to bask in areas that can be easily approached without significantly disturbing vegetation.

- 5.69 Vegetation will be cleared under ecological supervision and in stages using a hand-held strimmer and/or brush cutter and will be preceded by a bird nesting check completed by a suitably experienced ecologist.
- 5.70 The first cut will be to a minimum height of 300mm (no less), with a second cut to 100mm (no less) and then a final cut to ground level as advised by an ecologist. This will reduce the risk of killing and injuring reptiles because the works allow animals to move away on their own accord.
- 5.71 This work must only be conducted in suitable weather conditions (during periods of dry, suitable weather with an ambient air temperature of 12°C or above), as advised by an ecologist.
- 5.72 Any animals present can be caught by the supervising ecologist and translocated to the off-site receptor.
- 5.73 Measures relating to breeding birds (below) will also need to be considered during clearance works.
- 5.74 Most grassland habitats will not be cleared until the completion of the reptile trapping and translocation programme.

Trapping and translocation works

- 5.75 Prior to trapping works, herptile exclusion fencing fitted with two-way badger gates will be installed along the western, northern and eastern boundaries of the Site. Badger gates will be installed (if necessary) where known badger runs cross the fence line.
- 5.76 The installation of herptile exclusion fencing close to the retained and compensatory badger setts will be supervised by a suitably experienced ecologist to minimise disturbance of badgers.
- 5.77 It is likely that 60 trapping visits in suitable weather conditions will need to be conducted (HGBI, 1998). However, trapping may extend beyond this if animals continue to be caught.
- 5.78 Trapping works will not stop until at least 30 trapping visits have been conducted and until there have been at least five clear days of trapping, during suitable weather conditions, when no animals have been caught.
- 5.79 Trapping visits will only be counted if the weather is suitable. In particular, the weather will need to be dry, and temperatures will be above 12°C, which is the temperature when grass snakes start to bask (Gent and Gibson, 2003).
- 5.80 In general trapping visits, will not be conducted when the temperature is above 18°C (Froglife, 1999a). However, experience from other projects has shown that trapping can also be effective in temperatures up to 25°C, especially when it is warm and overcast, or during a sunny spell just after a thundery shower. Therefore, trapping works will only cease on-site when temperatures exceed 25°C.
- 5.81 'Clear days' will not be counted when trapping works are undertaken at temperatures above 18°C. Therefore, clear days will only be counted when capture works are being conducted in optimal conditions.
- 5.82 On very hot days trapping may be conducted early and late in the day. However, prolonged hot spells with hot nights are likely to reduce capture efficiency. In these weather conditions, the

period of animal free days would not be counted, or the number of free days will be extended to 10 days.

- 5.83 To ensure the effective capture of reptiles, artificial cover objects (ACOs) will be placed on-site at a high density and well above that recommended for survey work (Froglife, 1999). Areas of the most suitable habitat will be targeted. However, as a precaution, some ACOs will also be placed within areas of less suitable habitat.
- 5.84 The capture works will only be undertaken during the reptile active season, which is generally between early April and the end of September (inclusive). However, the season may start earlier or extend later because of periods of warm prevailing weather conditions. Translocation is scheduled to commence in July 2021.
- 5.85 Due to the public location of the site and practicality of using Heras fencing along the front and along the top of the bank of the Royal Military Canal, use of mobile CCTV cameras will be used to deter vandalism and interference with the ACOs.

Supervised destructive search and site clearance

- 5.86 Once trapping works have been completed, any areas of reptile habitat within the construction zone will be removed under the supervision of a suitably experienced ecologist and in dry weather when the temperature is above 15°C.
- 5.87 A toothed bucket will be used to remove vegetation and topsoil - to reduce the risk of killing and injuring any animals that might remain within the Site after the conclusion of trapping work. If any animals are present, this will allow them to be caught and moved to the receptor area.

COMPENSATION

- 5.88 The construction-stage site clearance will result in the loss of c.1.4ha of suitable reptile habitat from the Site, of which c.0.68ha was occupied by reptiles as indicated by the results of the reptile survey (Lloyd Bore, 2017a).
- 5.89 Compensation for the loss of the occupied habitat will be delivered in two ways.
- 5.90 Firstly, existing habitats have been enhanced for reptiles within both of the off-site receptor sites. Combined, the area enhanced for reptiles across the two receptor sites totals c.1.41ha.
- 5.91 These habitat enhancements have been targeted to deliver new foraging, shelter, basking, refuge and hibernation opportunities for slow worm, common lizard and grass snake.
- 5.92 The creation and enhancement of these off-site habitats has been completed prior to the commencement of translocation of reptiles from the site.
- 5.93 Secondly, c.0.8ha of new on-site compensatory habitat suitable for reptiles (tall grassland and low scrub) will be delivered within the Western Open Space.
- 5.94 This will provide long-term compensation for the loss of on-site habitats and will help to account for any adverse effects of translocation upon the local reptile population.
- 5.95 It is likely that there will be a minor net loss of on-site suitable reptile habitat at the site level. However, taken together, the habitat enhancement works at the Primary and Secondary Reptile Receptor Sites and on the approved development site will result in a minor net increase in the extent and quality of reptile habitat available at the local level.

- 5.96 The new and enhanced reptile habitats within the Primary Reptile Receptor Site and the on-site Western Open Space will connect on to a wider network of suitable reptile habitat within the canal corridor. The new and enhanced reptile habitats within the Secondary Reptile Receptor Site will connect on to a wider network of suitable reptile habitat to the north, west and south of the Spring Lane cemetery.
- 5.97 Detail of the management strategy for receptor habitats and habitats within the Western Open Space will be confirmed in the LEMP that will be submitted to address Planning Condition 47.
- 5.98 The new habitats will be managed to ensure that they continue to provide foraging, shelter, basking and hibernation opportunities for reptiles post-development.

Hibernacula design and creation

- 5.99 The design of the hibernacula at the Reptile Receptor Sites has broadly followed that depicted in the Great Crested Newt Conservation Handbook (Langton *et al.*, 2001).
- 5.100 The construction of each hibernaculum at the Reptile Receptor Site will use of logs, topsoil and a partial covering of turf. The design allows some of the logs to remain exposed providing areas for basking. Gaps within the exposed wood provide bolt holes and ingress into the interior for refuge and food.
- 5.101 The hibernacula were positioned close to the areas of planned reptile release, with sunny aspects linked to a corridor of suitable reptile habitat and out of areas of flood risk.
- 5.102 The hibernacula are each c.500mm high, c.2m wide and c.2m long.
- 5.103 The construction of the hibernacula within the Primary Reptile Receptor Site did not break ground, to avoid impacts to the scheduled ancient monument site. Instead, a deeper topsoil layer was included within the design to provide an alternative hibernation habitat.
- 5.104 At least nine reptile hibernacula will be created within the approved development site, to the above specification and will include a section dug to c.500mm and the hole lined with gravel to aid drainage. These hibernacula will be distributed within the Western Open Space (4 no.) and at the top of the embankment that forms the northern edge of the approved development site, adjacent to the Linear Park and west of the central north-south footpath (5 no.). These hibernacula will also be suitable for amphibians including common toad.
- 5.105 Hibernacula have been and will be built under ecological supervision. The remaining hibernacula will be created during the summer/early autumn months - giving them time to become established and the reptiles the opportunity to locate them before the commencement of hibernation.

SITE MONITORING FOR REPTILES

- 5.106 Three consecutive years of Site and receptor monitoring will occur. The monitoring will focus on the off-site receptors (both sites) and on-site habitats within the Western Open Space, Linear Open Space and the embankment that forms the northern edge of the approved development site.
- 5.107 Monitoring of the receptor sites will commence during the first year after the translocation works are complete.
- 5.108 Monitoring within the site will commence during the second year after the compensatory habitats have been implemented.

- 5.109 Monitoring will examine any changes to habitat quality and if necessary, amendments to habitat management will be provided.
- 5.110 The monitoring work will also look for evidence of breeding by reptiles in each of the three years of monitoring. In the third and final year of monitoring, a population size class estimate assessment will be conducted. This will take the form of a standard reptile survey checking ACO's placed across the site in order to establish peak counts of reptiles within the translocation area. In the first and second year of monitoring, so specific reptile survey will be undertaken, but the condition of receptor habitats will be checked by a suitably experienced ecologist and, if necessary, remedial or improvement actions will be planned following these habitat assessments.

BREEDING BIRDS

- 5.111 Nesting birds, and their nests, eggs and chicks are afforded legal protection from intentional destruction, killing or injury by the Wildlife and Countryside Act 1981 (as amended).
- 5.112 In addition, bird species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) are afforded protection from intentional and reckless disturbance whilst breeding.

AVOIDANCE

- 5.113 The retention of vegetation on the embankment that forms the northern edge of the approved development site and in the Western Open Space will allow the retention of good quality bird breeding habitat adjacent to the RMC.
- 5.114 However, clearance of vegetation from the remainder of the site will be required to facilitate the capping of contaminated ground. For this reason, impacts upon the habitat available to breeding birds cannot be completely avoided.

MITIGATION

- 5.115 In the absence of mitigation, there is a high risk that works undertaken during the construction stage would result in destruction of active bird nests. To mitigate this risk, the following measures are proposed.
- 5.116 Vegetation clearance works on site will need to be undertaken within the typical main bird nesting season (March to mid-September, inclusive) to facilitate reptile capture, the creation of the compensatory badger sett, the closure of the existing badger sett and during the destructive search of reptile habitats. Any remaining areas of vegetation will be cleared from mid-September onwards, which is outside of the typical main bird nesting period.
- 5.117 Checks will be conducted prior to the clearance of any vegetation during the bird nesting season (March to mid-September). The checks will be undertaken by a suitably experienced ecologist.
- 5.118 The checks will be performed either on the day of clearance or up to two days (no more than 48 hours) in advance of the clearance if deemed appropriate by the ecologist. Any active nests will need to be left *in situ* until birds have stopped using them.
- 5.119 Given the extent of the vegetation to be cleared, this work will be conducted in sections and at a rate that is sensitive to wildlife. The limit of the checked area will be marked to ensure that vegetation clearance work remains within the extent of the checked area.

- 5.120 The Wildlife and Countryside Act 1981 (as amended) makes it an offence to intentionally or recklessly disturb those bird species listed on Schedule 1 of the Act whilst they are breeding. This includes adults and their young, at, on or near an 'active' nest.
- 5.121 During bird surveys and Site visits, kingfisher (*Alcedo atthis*) and Cetti's warbler (*Cettia cetti*) were recorded. These species are both listed on Schedule 1 of the Act.
- 5.122 Given the risk of breeding Schedule 1 bird species being present, if these species are observed during pre-clearance checks, further checks prior to vegetation clearance will focus on recording behaviour to establish whether there is evidence of active nests. This will include a check for forms of display, courtship feeding and/or nest building. If there is evidence of nesting, the checks will aim to establish an approximate location, from which an appropriate buffer will be implemented. If any active nests are recorded, to avoid the risk of intentional or reckless disturbance an appropriately sized buffer around the active nest will need to be implemented.
- 5.123 A buffer of at least 25m around any breeding kingfisher or Cetti's warbler nest sites is considered appropriate and sufficient to minimise the risk of disturbance during site clearance works.
- 5.124 Habitats suitable for nesting birds within the adjacent section of the RMC will be protected using r propped Heras fencing (or similar) fitted with debris netting and/or rigid Site hoarding. Wildlife Protection Notices will be affixed to the Heras fencing (see Appendix 1).
- 5.125 This protection will be maintained until all construction works that could result in damage of these off-site habitats have been completed.
- 5.126 Additional detail of mitigation measures relating to nesting birds will be included within the CEMP.

COMPENSATION

- 5.127 New tall scrub and tree habitat will be provided within the Linear Park and on embankment areas (as shown on the *Habitat Retention and Creation Plans*).
- 5.128 The embankment planting will include dense native shrub planting along the development boundaries. A species mix could include hawthorn (50%), field maple (*Acer campestre*) (30%), hornbeam (*Carpinus betulus*) (10%), guelder rose (3%), dogwood (3%), spindle (*Euonymus europaea*) (2%) and dog rose (*Rosa canina*) (2%).
- 5.129 Coastal wildflower meadow and grassland will also be provided within the Western Open Space.
- 5.130 These habitats will be delivered during Phase 1 of the construction stage.
- 5.131 These habitats will provide dense cover, foraging and nesting opportunities for song thrush (*Turdus philomelos*), reed bunting (*Emberiza schoeniclus*), linnet (*Linaria cannabina*) and other birds. They will also provide dense cover and foraging opportunities for house sparrow (*Passer domesticus*), starling (*Sturnus vulgaris*) and Cetti's warbler.
- 5.132 Song thrush, house sparrow, linnet, starling and reed bunting are all SPI and have been recorded within the Site.
- 5.133 Delivery of these new scrub habitats will effectively compensate for the loss of pre-clearance scrub habitats from the site during initial site clearance.
- 5.134 Detail of the management of these plantings will be provided in the LEMP.

BADGERS

- 5.135 Setts A will be retained within an area of dense retained scrub vegetation.
- 5.136 Setts B, C, D and E will need to be removed to facilitate development. To close Setts B, C and E, a licence to interfere with setts for development purposes will need to be obtained from Natural England. No such licence will be required to remove Settt D, which is unlikely to still be present, and an ecological watching brief will instead be maintained for works within 20m of the prior location of Settt D.
- 5.137 To compensate for the loss of a breeding sett and outliers, a compensatory badger sett will be created within the retained habitat at the west of the site, in the location indicated on the *Proposed Badger Sett Location Plan*. The new sett will be located c.625m from the existing main / breeding sett (Settt B). The new sett cannot be created any closer to Settt B due to the proximity of the proposed new road. The new sett will therefore be created at the closest point at which a 30m buffer can be maintained between the new sett and the new road.
- 5.138 The 2021 badger bait marking survey shows that the territory of the badger social group that utilise Settt B extends to the western half of the Hythe Imperial Golf Course, which is located beyond the western edge of the approved development site. In addition, no active badger setts were located within the wider canal corridor between the eastern end of the application site and Twiss Road. As a result, the proposed location of the new sett is assessed as being within the territory of the badger social group that use Settt B and no evidence of presence of other badger social groups / setts was recorded during the survey). The proposed new sett location is therefore deemed appropriate and it is anticipated that badgers from Settt B will easily be able to locate this sett during the pre-sett-closure period (when bait and camera traps will be placed at the new sett to attract and record evidence of use by badgers prior to closure of Settt B).
- 5.139 The compensatory sett will be created in June or latest July 2021. As soon as the new sett is created, a bait mix designed to attract badgers will be placed within the new sett entrances and camera traps, sand pads and hair traps will be set up to monitor whether badgers enter the new sett. The bait balls will be mixed with coloured food grade marker pellets.
- 5.140 Camera traps will also be installed on active existing setts to monitor badger emergences as a means of assessing whether they correspond with badgers recorded using the new sett. The existing sett areas and latrines within the wider survey area will be searched for any badger faeces that contain these pellets.
- 5.141 Once evidence of use of the new sett by badgers has been evidenced through camera trapping and/or bait marking, the closure of Settt B and any other active badger setts (including Settt C and E) will be commenced. Closure of existing setts will not commence until use of the new sett has been evidenced.
- 5.142 Settt B, Settt C and Settt E will be closed within the standard sett closure period of July to November (inclusive). Based on the likely timeframe for determination of the licence application, sett closure will most likely occur between September / October and November 2021. One-way gates and protective thick-gauge wire mesh will be installed on each sett entrance.
- 5.143 A suitably experienced ecologist will monitor the closed sett/s for a minimum of 21 days to determine whether the sett exclusion has been successful. If badgers are found to re-enter the

closed sett, the exclusion measures will be reinstated and the 21-day monitoring period will be restarted. The compensation sett will also be monitored during this period.

- 5.144 Once the ecologist is confident that badgers no longer occupy the active sett/s (following a 21 day 'clear period') the active sett/s can be excavated. The sett excavation will be undertaken under the direction of the ecologist.
- 5.145 Exact badger mitigation and compensation requirement will be detailed within the badger licence with possible further mitigation measures being proposed by Natural England.
- 5.146 The development will result in the loss of badger foraging habitat. However, new grassland habitat will be created within the new Western Open Space within c.40m of the new compensation sett.
- 5.147 In addition, the Western Open Space, the northern boundary of the site and RMC corridor will not be lit - to maintain a dark corridor and to encourage badger foraging. Further details on site lighting restrictions are provided in the 'Bats' section below and in the associated *Lighting Strategy for Biodiversity* that has been produced to address Planning Condition 18.
- 5.148 During the construction phase, all open pipes will be covered at the end of each day to prevent badgers from entering open pipes or tunnels on-site. Excavations will need to be covered or a broad plant placed inside the excavation to allow to prevent badgers from becoming trapped. A suitable experienced ecologist will be able to advise site workers through a toolbox talk at the start of construction works on-site.
- 5.149 All fencing installed on-site will be installed with gaps or two-way badger gates to allow badgers to freely move across site and through on-site and off-site habitats.
- 5.150 Post development, badgers should be able to freely access the northern boundary, the RMC corridor and the Western Open Space. However, robust sub-surface barriers will be installed adjacent to the proposed new road to minimise the risk of badgers tunnelling under the new road. The exact specification of these barriers will be determined through further detailed construction design work, but they will be designed to robustly prevent badger tunnelling.

BATS

- 5.151 A separate *Lighting Strategy for Biodiversity* has been produced to address Planning Condition 18.
- 5.152 This separate document includes details of the design and external appearance and siting of all street and footpath lighting, the hours of operation and details of how, where and what external lighting will be installed. This detail is not repeated in this EMS, however, the basic principles of the lighting design for the construction and occupation stages are summarised below: -
- External lighting will be minimised across the entire site.
 - A dark corridor will be maintained adjacent to the northern boundary, retained habitats, the new Western Open Space and the RMC corridor. These areas support high quality bat foraging and commuting habitat.
 - To help achieve this, an unlit landscape buffer zone, located outside of residential curtilages, will be provided adjacent to the northern boundary, Western Open Space and all retained habitats.

- Only the minimum level of lighting required for site security / health and safety will be installed on site. Use of narrow spectrum lighting with no UV content, or 'warm white' LED lighting (ideally <2700 Kelvin, with peak wavelengths higher than 550nm) will be prioritised.
- All lighting will be directed to ground and light spill should be minimised through use of hoods, shields and/or cowls to maintain an upward light ratio of 0%.
- Subject to health and safety and safe-by-design considerations, motion sensors and/or timers may be used to limit the duration of nocturnal lighting (ideally to short illuminance periods of 1 minute or less).
- In general, lighting will follow the principles outlined in Section 3 of the Bat Conservation Trust and Institution of Lighting Professionals Guidance Note 08/18: *Bats and artificial lighting in the UK* (BCT and ILP, 2018), and should only be used where necessary.

5.153 The risks of light-related impacts upon foraging and commuting bats during the construction stage are likely to be low because, in general, construction works during the main period of bat activity are unlikely to occur so late in the day that it coincides with dusk or night. During the winter period, when construction lighting is likely, bats are not active, or their activity levels are low.

5.154 However, the above mitigation measures will be adopted to further minimise the potential risk of impacts on foraging and commuting bats and badgers during the construction stage.

5.155 Further details will be provided in the *Lighting Strategy for Biodiversity*.

5.156 The most important bat foraging habitats (RMC and, at a site level, the embankment that forms the northern edge of the approved development site) will be retained and protected. However, the initial site clearance works will result in loss of foraging habitats used by low numbers of common and soprano pipistrelle bats. The habitat creation proposals summarised earlier in this document will deliver a mosaic of suitable bat foraging habitats on site and it is predicted that the low level adverse effect of site clearance upon foraging bats will be compensated for in the medium to long-term through the creation of these new habitats.

OTHER MAMMALS

5.157 Animal burrows (excluding badger setts) on site will be carefully excavated in a manner that allows animals (e.g. rabbits or foxes) to safely escape before works commence. Implementation of this approach should be sufficient to avoid an offence.

5.158 Ecological supervision will be required during animal burrow excavations. Any holes that are excavated on site will be covered overnight to prevent animals from falling in.

5.159 Open pits, open pipes and other excavations will need to be covered at the end to prevent mammals from being trapped. If this is not possible, a broad plank can be placed in excavations to allow animals to escape.

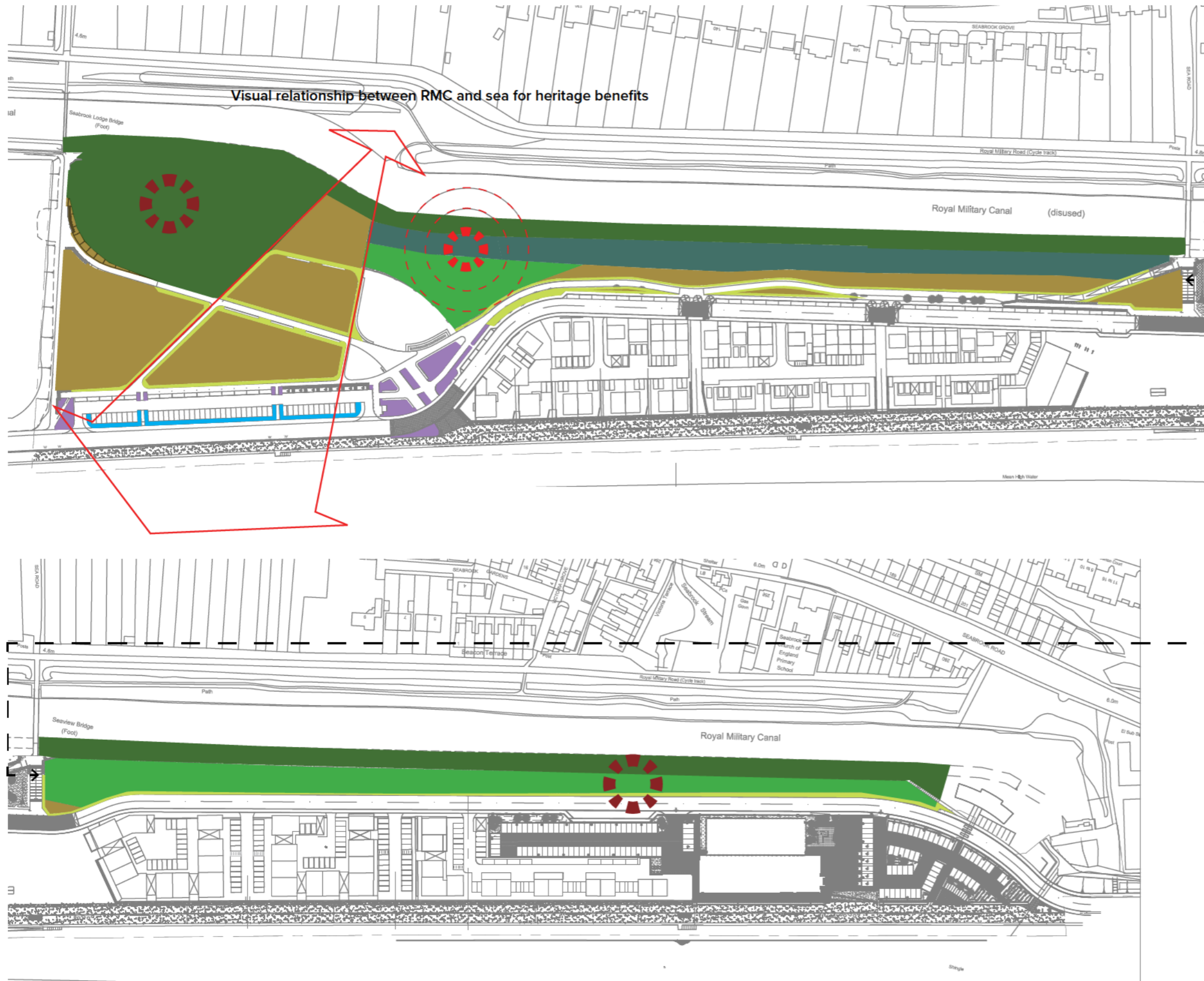
5.160 Excavations should be checked first thing each morning, prior to the start of works that day. Any animals found within excavations should be allowed to escape and move off, or carefully removed and placed within suitable habitat cover, before site works commence.








6. HABITAT RETENTION AND CREATION PLANS


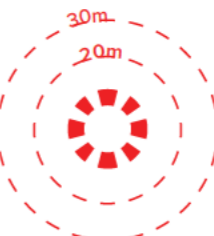
[SEE OVERLEAF]

MHS SK16_12.05.2021 Proposed Landscape Finishes/Habitats for Western & Linear Parks

Rev B



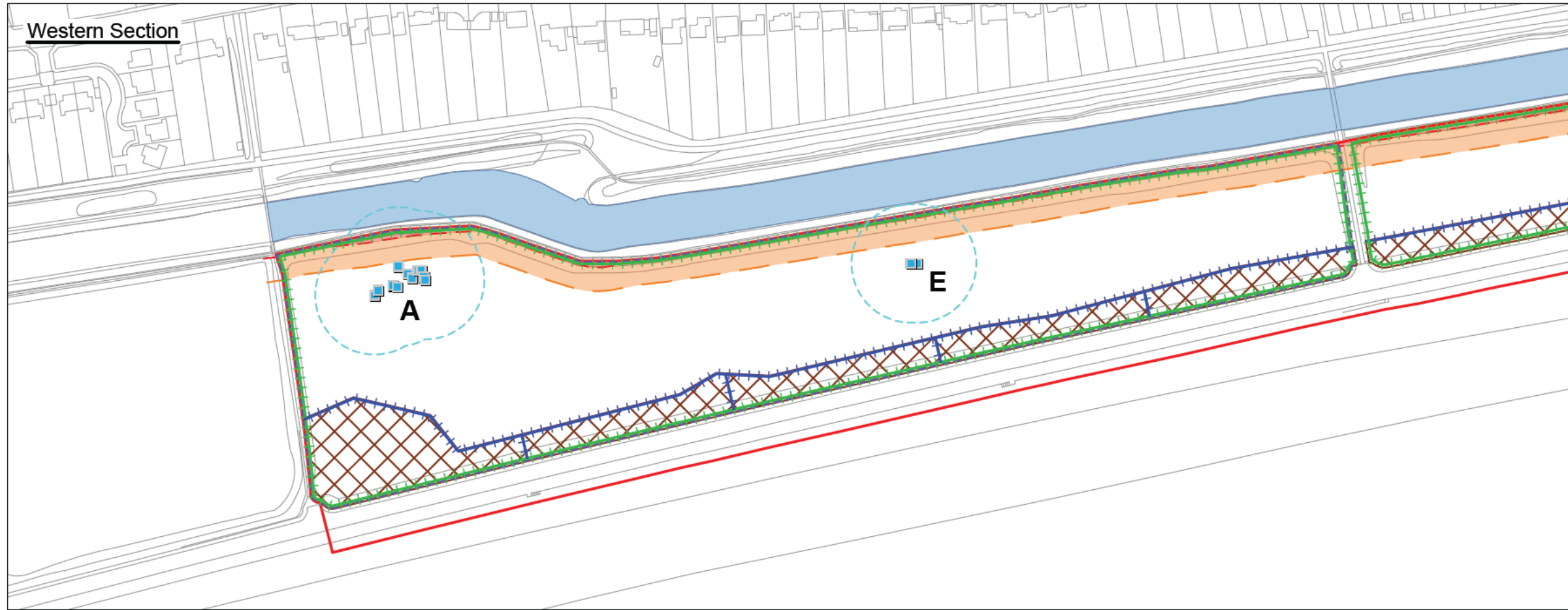
-  Existing vegetation retained as existing
-  Existing vegetation retained and enhanced with new native tree/shrub planting
-  Proposed native tree/shrub planting with 80:20 grass:wildflower groundcover (coastal mix) - 1/2 cuts per year
-  Proposed 80:20 grass:wildflower groundcover (coastal mix) - 1/2 cuts per year
-  Proposed mown grass, as margins to above (circa 21 cuts per year)
-  Proposed shrub/herbaceous planting mix
-  Proposed evergreen hedging

-  Existing badger setts
-  Proposed badger sett with distance markers

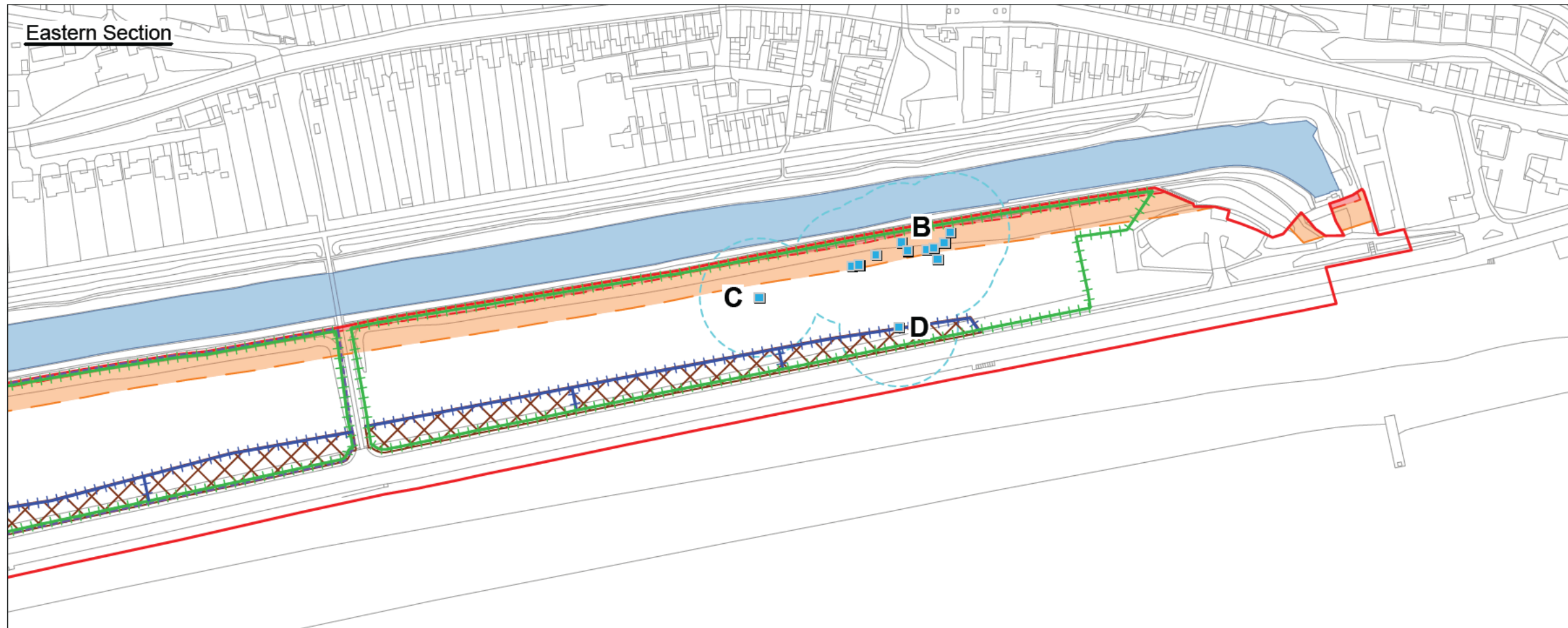
7. ECOLOGICAL PROTECTION PLAN

[SEE OVERLEAF]










Western Section



Eastern Section

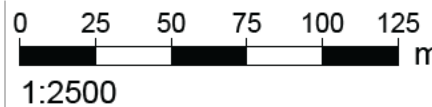


LEGEND

-  Royal Military Canal
-  8m offset from the Royal Military Canal
Environment Agency permit will be required for works within this zone
-  20m offset from the Royal Military Canal
Ecological Clerk of Works to provide method statement and, if required, direct supervision for any works within this zone
-  Existing badger sett entrance and sett reference code
-  30m works exclusion zone around existing badger setts
-  Fencing Layout Phase 1
Indicative location for reptile and amphibian drift fencing; to be with suitable habitat broken into c.100m long reptile and amphibian trapping zones
-  Fencing Layout Phase 2
Reptile and amphibian exclusion fencing
-  Confirmed Reptile Habitat
Slow worm, common lizard and grass snake were recorded in these areas during reptile survey undertaken in 2017. These areas provide foraging, refuge, basking and hibernation opportunities for reptiles
-  Site Boundary

Notes

All fencing works (Heras fencing and amphibian and reptile fencing) will be undertaken in accordance with the details set out in the Ecological Method Statement document and under the guidance of and (where required) an ecological watching brief by the Ecological Clerk of Works (ECOW). This is to ensure that risks to reptiles, amphibians, badgers and breeding birds are robustly controlled and managed during the installation of fences.



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00 001 00 Who estimates a specification

client: **Folkestone & Hythe District Council**
 project: **Princes Parade, Hythe (FHDC)**
 Princes Parade
 Hythe, Kent

drawing no: **3609-LLB-XX-XX-DR-Ec-0009** rev **P02**
 status: **PLANNING** suit **S4**
 drawing title: **Ecological Protection Plan**
 Fencing

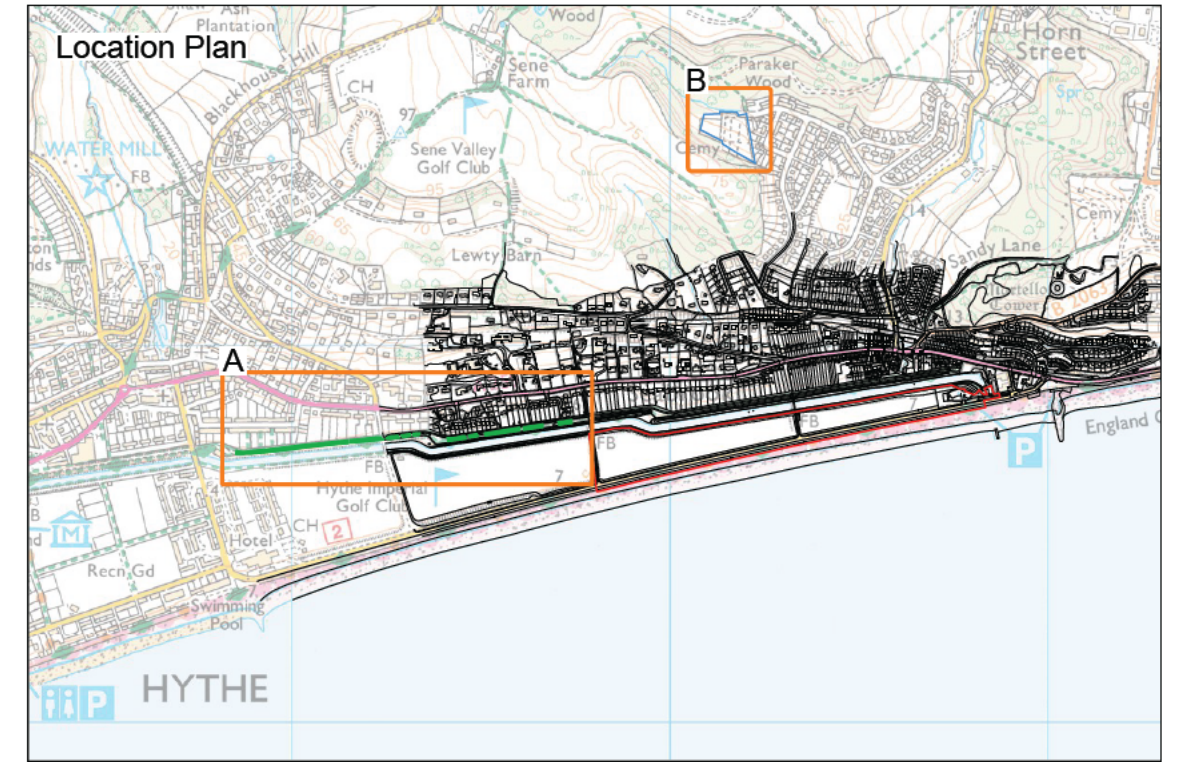
rev date: **11/08/2021**
 scale: **NTS**
 sheet: **A3**
 drawn: **DM**
 checked: **SD**

lloyd bore landscape ecology arboriculture
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 59 LAMBETH WALK, LONDON SE11 6DX 02075 822 363
 www.lloydbore.co.uk mail@lloydbore.co.uk

8. REPTILE RECEPTOR SITE LOCATION PLAN

[SEE OVERLEAF]

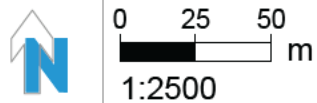
B) Secondary Receptor Site



LEGEND:

- Primary Reptile translocation receptor site
0.67 ha.
- Secondary Reptile translocation receptor site
1.09 ha.
- Site Boundary

A) Primary Receptor Site



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rev. rev. da # auth. rev. rdn
P01 28.05.21 SD Initial Issue
P02 11.08.21 SD Minor amendments.

rev. rev. da # auth. rev. rdn

client: **Folkestone & Hythe District Council**
project: **Princes Parade, Hythe (FHDC)**
Princes Parade
Hythe, Kent

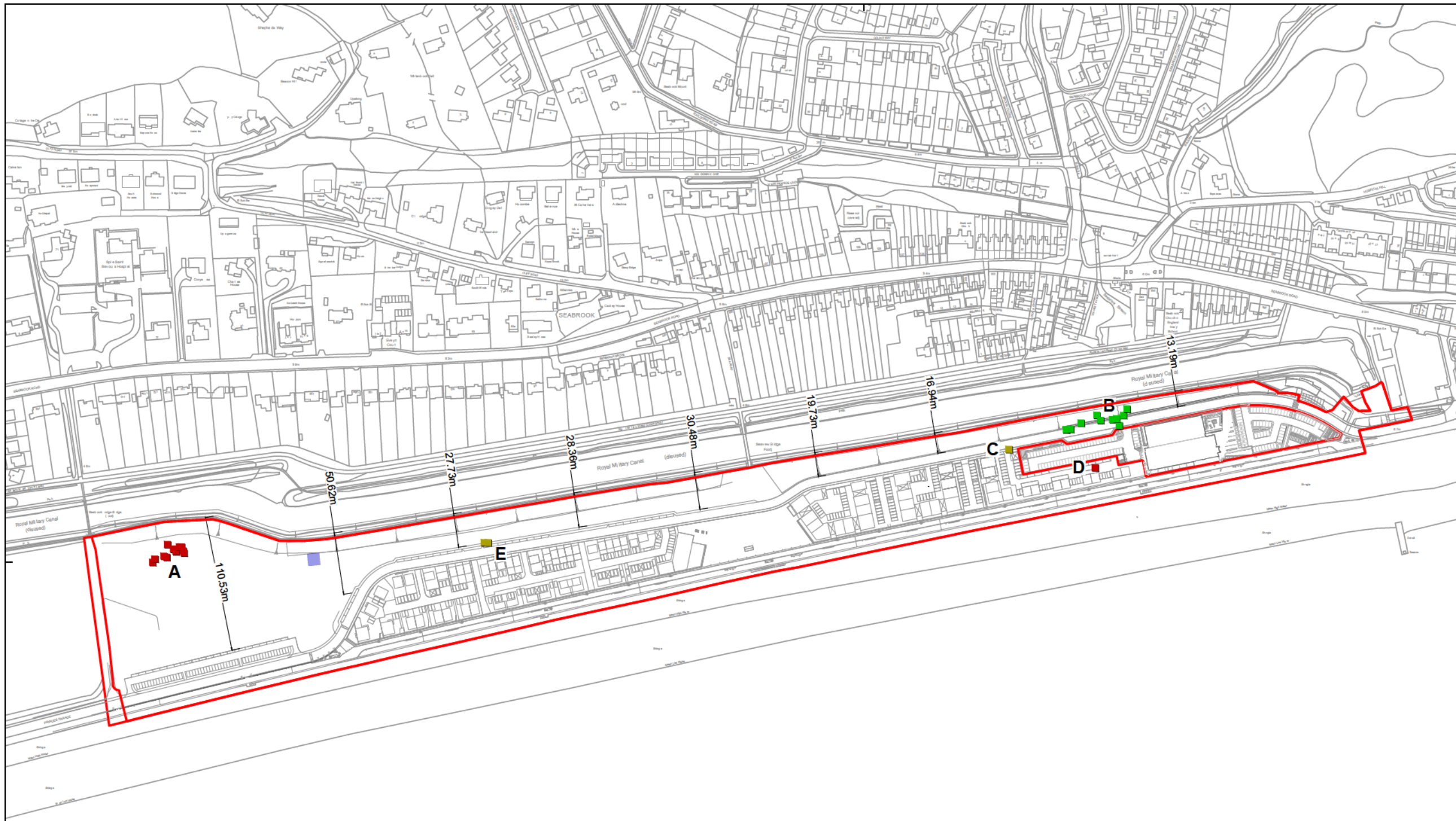
drawing no. **3609-LLB-XX-XX-DR-EC-0002** rev. **P02**
drawing title: **Reptile Receptor Location Plan** suit. **S4**

rev date: **11/08/2021**
scale: **1:2500**
sheet: **A3**
drawn: **DM**
checked: **SD**

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9. PROPOSED BADGER SETT LOCATION PLAN

[SEE OVERLEAF]



LEGEND

- # Existing assumed main sett entrance and sett reference code.
- # Existing outlier sett entrance and sett reference code.
- # Disused badger sett entrance and sett reference code.
- Proposed location for artificial badger sett.
Distance from sett B: 625 6m
Extent of habitat retention around artificial sett location, around location of Sett A and along northern embankment of the site is shown on the landscaping proposals for the scheme. Retention of badger foraging habitat and cover within these areas has been maximised wherever possible.
- Site boundary

N.T.S.

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rev.	date	auth.	rev. note
P01	25.05.21	SD	Initial issues.
P02	16.07.21	SD	Minor amendments in accordance with additional survey in creation.

rev. date auth. rev. note

client: **Folkestone & Hythe District Council**
 project: **Princes Parade, Hythe (FHDC)**
Princes Parade
Hythe, Kent

drawing no. **3609-LLB-XX-XX-DR-EC-0011** rev. **P02**
 drawing title: **Ecological Mitigation Plan**
Artificial Badger Sett
 sub. **S4**

rev date: **16/07/2021**
 scale: **NTS**
 sheet: **A3**
 drawn: **SD**
 checked: **SD**

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10. TIMETABLE

10.1 The approved scheme will be delivered in three phases after the completion of initial ecology works (Ecological Phase). The projected timelines for each phase are as follows:-

- Ecological Phase - February 2021 to December 2021
- Phase 1 - February 2022 to September 2023
- Phase 2 - October 2022 to February 2024
- Phase 3 - March 2023 to August 2024

10.2 Table 1 provides detail of the pre-construction stage ecology works that are being undertaken and are proposed in 2021. This includes the clearance of vegetation for Phases 2 and 3.

10.3 Tables 2, 3 and 4 below provide detailed timings for ecological method of works and mitigation measures for each subsequent development phase.

Table 1: Ecological Phase

Consideration	Work required	Timings
Reptiles and common toad	Establishment of habitat within reptile receptor sites	April 2021- July 2021
	Installation of herptile exclusion and drift fencing	July 2021
	Reptile and common toad translocation	July 2021-September 2021
	Destructive search for reptiles and common toad	September 2021 (once trapping works completed)
Badger	Badger sett monitoring	March 2021 to May 2021
	Creation of artificial sett	June / July 2021
	Badger sett closure	September / October- November 2021 (as required by NE licence)
	Post sett closure monitoring	Immediately after sett closure
Nesting birds	Removal of nesting bird habitat, completion of pre-clearance bird nesting checks	March 2021- December 2021

Consideration	Work required	Timings
Non-native invasive flora	Identification of giant hogweed	June / July 2021
	Warning signs installed	Immediately, if plants identified on site
	Removal of giant hogweed (if required)	May-July 2021 (prior to seed dispersal)
Vegetation removal (remaining areas)	Destructive search	After completion of reptile translocation exercise and badger sett closure. (Likely September 2021)

Table 2: Phase 1

Consideration	Work required	Timings
General	Compliance check walkover survey by Ecological Clerk of Works (ECoW)	Monthly across construction period
Reptile	Receptor site monitoring surveys	Any time between April - September 2022
Badger	30m buffer around all setts (including artificial sett)	To be maintained throughout construction works
Nesting birds	Removal of any re-establishing on-site vegetation to aid construction work. Ecological supervision required if within nesting bird season	September - February (outside nesting bird season) March-August (within nesting bird season)
Other mammals	Implementing measures to protect mammals during construction works	Throughout construction phase
Retained habitat	Protective fencing	Prior to construction work. To be maintained throughout construction works.

Consideration	Work required	Timings
New habitat planting	Shrub and tree planting	After the completion of works along the embankment that forms the northern edge of the approved development site.
	Grassland planting	During the creation of the Western Open Space
	Creation of green roof	Completion of sports centre
Preliminary Ecological Appraisal (update site walkover)	Site walkover to review / update ecological mitigation. If no material changes, simple letter produced by ECoW to be submitted to planning. If material changes, update this EMS and resubmit to planning, detailing the changes made.	September 2022 -prior to commencement of Phase 2 in October 2022

Table 3: Phase 2

Consideration	Work required	Timings
General	Compliance check walkover survey by Ecological Clerk of Works (ECoW)	Monthly across construction period
Reptile	Reptile receptor site monitoring (visit 3).	Between April and September 2023
Badger	30m buffer around all setts (including artificial sett) to be maintained	Monitored throughout all phases
Habitat planting	Planting of trees and scrubs within the central open area	Between April and September
Other mammals	Implementing measures to protect mammals during construction works of the character area east	Throughout construction phase

Consideration	Work required	Timings
Retained habitat	Protective fencing	To be maintained throughout construction works.
Preliminary Ecological Appraisal (update site walkover)	Site walkover to review / update ecological mitigation. If no material changes, simple letter produced by ECoW to be submitted to planning. If material changes, update this EMS and resubmit to planning, detailing the changes made.	February 2023 - prior to commencement of Phase 3 in March 2023

Table 4: Phase 3

Consideration	Work required	Timings
Reptile	Reptile receptor site monitoring (visit 4).	Between April and September 2024
Badger	30m buffer around all setts (including artificial sett) to be maintained	Monitored throughout all phases
Habitat planting	Planting of trees and scrubs within the western open area	Between April and September
Other mammals	Implementing measures to protect mammals during construction works of the character area east	Throughout construction phase
Retained habitat	Protective fencing	To be maintained throughout construction works.

11. PHOTOGRAPHS: REPTILE RECEPTOR SITES



Reptile habitat enhanced at the primary receptor site.



Reptile habitat enhanced at the primary receptor site. Scrub removal and establishment of grassland.



Established grassland over the secondary receptor site, providing moderate suitability reptile habitat.



Mature shrubby edges and meadow grassland provide moderate suitability reptile habitat.

12. REFERENCES

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Lloyd Bore (2019). *Ecological Mitigation Strategy (REF: 3609-LLB-RP-EC-0013-S4-P02)*. Lloyd Bore Ltd, Canterbury, Kent. Peter Radmall Associates (2019). *Revised Surfacewater Drainage Strategy. ES Addendum*. ██████████ Associates Environmental Planning and Assessment.

APPENDIX 1: WILDLIFE PROTECTION NOTICE



WILDLIFE PROTECTION AREA

**WILDLIFE IN THIS AREA IS LEGALLY PROTECTED AND/OR
PROTECTED BY PLANNING CONDITIONS**