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Sandown Park
Racecourse, Esher

Bat and Great Crested Newt Survey Report

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Summary

- S.1. This report has been prepared by Tyler Grange LLP on behalf of Jockey Club Racecourses (JCR). It sets out the findings of bat and great crested newt (GCN) *Triturus cristatus* surveys, undertaken to inform a Masterplan-led planning application for proposals at Sandown Park.
- S.2. A hybrid planning application has been submitted for the site (Planning application reference 2019/0551), for mixed-use development comprising:
- An outline planning application (with all matters reserved except for access to the development) for:
 - Enhancement and rationalisation of existing racecourse facilities/infrastructure and car parking;
 - Re-location of an upgraded children's nursery (Use Class D1);
 - Development of a c. 150 room hotel (Use Class C1), and
 - Demolition of existing buildings/structures and residential development of approximately 318 dwellings (Use Class C3).
 - A full planning application for:
 - Racetrack widening to the southwest and east sections of the existing racecourse track, including associated ground levelling/earthworks to the southwest section, and re-positioning of fencing, and improvements to a section of the existing internal access road from More Lane, and
 - New bell-mouth accesses serving the development.
- S.3. Through consultation with Surrey Wildlife Trust, who advise Elmbridge Borough Council on ecology matters, it was determined that bat and GCN surveys were required to be undertaken to inform the above referenced hybrid planning application. It was also determined that reptile surveys could be undertaken at the reserved matters stage to inform any forthcoming reserved matters application.
- S.4. All trees subject to climbed endoscope inspections were found not to support roosting bats. As such, no specific mitigation measures with respect to bat roosts in trees at sites 1, 5 A and F are required. As per the method of survey agreed with SWT on 11th March 2019 (see **Appendix 5.2**), should any of the trees that were subject to a climbed inspection be required to be modified/removed as part of the proposals (once fixed at the reserved matters stage), these trees should be subject to a final climbed endoscope inspection to ensure no roosting bats are present within the identified PRF(s).
- S.5. All buildings within Sites 1, 3, 5, C and F that were subject to emergence/re-entry surveys (and in two instances, endoscope inspections) were found to not support roosting bats.
- S.6. During the dawn re-entry survey carried out on Site 2 Building B2 (also labelled as Site A Building B3), a single Daubenton's bat was observed re-entering beneath a gap formed by a lifted fascia on the north-eastern elevation of the building. Given that the Daubenton's bat was found to be roosting alone, the roost is characterised as being a day roost likely to be used by a single bat or very low numbers of bats.
- S.7. As the roost has been categorised as a day roost for low numbers of common and widespread bat species, a Bat Low Impact Class Licence (BLICL) from NE can be used to undertake the required works. Once the BLICL is granted, any modification/demolition works should be undertaken between September – May, as Daubenton's are likely to be occupying hibernation sites during this period and are therefore less likely to be directly impacted (injured or killed) by the proposed works (Mitchell-Jones, 2004). Demolition of the building should be undertaken under the supervision of an Ecological Clerk of Works (ECoW); if any bats are found during works the bats will be translocated to the artificial roost features that have already been installed, namely tree mounted bat boxes (see below).
- S.8. To compensate for roost loss, and to provide increased opportunities for roosting bats, several artificial roost features should be included within the design of the proposed development. These bat boxes should be integrated into the new building design at the reserved matter stage, with hanging bat boxes



affixed to trees nearby to the area of woodland to the north of Site A. As the roost is formed of a gap beneath lifted fascia board, the use of bat boxes that provide crevices for roosting will provide 'like-for-like' roosting opportunities.

- S.9. The bat boxes provided to replace the known bat roost should comprise two integrated bat boxes (such as Ibstock Enclosed Bat Box 'C') to be incorporated into the buildings to be constructed within Site 2. Two bat boxes (Schwegler 1FF type) should be placed on south-westerly, south and south-eastern aspects of tree trunks adjacent to the area of woodland north of Site A to provide a range of roosting conditions.
- S.10. Lighting at the site during the construction and operation phases of the proposed development should be sympathetic to bats that may be roosting at the site or utilising the site and nearby habitats for foraging and commuting activity. This will be detailed in a 'Sensitive Lighting Management Plan' to be submitted at the reserved matters stage, as detailed in the consultation response from Surrey Wildlife Trust dated 14th May 2019.
- S.11. The presence/likely absence surveys for GCN found no GCN to be present in any of the ponds/ditches surveyed within the masterplan site. It is therefore considered unlikely that GCN are present within the masterplan site or any of the individual sites. As such, no mitigation for GCN at Sites 3, 4, 5 and C is required.
- S.12. A site-wide ecological enhancement plan for the masterplan site is being prepared. The site-wide enhancement plan will take the form of a Landscape and Ecological Management Plan (LEMP) and provide enhancements for bats, GCN and biodiversity generally, with the aim of achieving a net gain for biodiversity across the masterplan site. The LEMP will include the following:
- Installation of bat and bird boxes, and insect hotels;
 - Nectar rich planting to increase the invertebrate food resource at the site, for species such as birds and bats;
 - Establishment of wildflower grassland;
 - Establishment of hedgerows/new native woody boundary features;
 - Replacement and additional native tree planting;
 - Enhancement of on-site ponds, for example through the planting of emergent and marginal vegetation; and
 - Establishment of refugia/deadwood piles nearby to ponds for amphibians such as smooth newt (detected as present during newt surveys).
- S.13. With the implementation of the above mitigation and enhancement strategy, the proposed development would be in conformity with relevant planning policy and legislation, as listed in **Appendix 1** (namely Policies CM15 and DM21).



Section 1: Introduction, Context, and Purpose

Introduction

- 1.1. This report has been prepared by Tyler Grange LLP on behalf of Jockey Club Racecourses (JCR). It sets out the findings of bat and great crested newt (GCN) *Triturus cristatus* surveys, undertaken to inform a Masterplan-led planning application for proposals at Sandown Park.
- 1.2. The application sites assessed in this report are further defined in 'context' below, and are based upon those illustrated in plan **11071FE_101_G_Masterplan**, prepared by PRC Architecture and Planning.

Context

- 1.3. A hybrid planning application has been submitted for the site (Planning application reference 2019/0551), for a mixed-use development comprising:
 - An outline planning application (with all matters reserved except for access to the development) for:
 - Enhancement and rationalisation of existing racecourse facilities/infrastructure and car parking;
 - Re-location of an upgraded children's nursery (Use Class D1);
 - Development of a c. 150 room hotel (Use Class C1), and
 - Demolition of existing buildings/structures and residential development of approximately 318 dwellings (Use Class C3).
 - A full planning application for:
 - Racetrack widening to the southwest and east sections of the existing racecourse track, including associated ground levelling/earthworks to the southwest section, and re-positioning of fencing, and improvements to a section of the existing internal access road from More Lane, and
 - New bell-mouth accesses serving the development.
- 1.4. A preliminary ecological appraisal (PEA) and preliminary bat roost assessment (PBRA) of the 12 individual sites, within the masterplan site, was undertaken in late 2018 and submitted with the above referenced hybrid planning application. The PEA and PBRA report set out the requirement for further surveys for the following species groups at various sites within the masterplan site:
 - Bats (emergence/re-entry surveys of buildings and trees);
 - GCN (presence/likely absence surveys of ponds); and
 - Reptiles (presence/likely absence surveys within areas of suitable habitat).
- 1.5. Through consultation with Surrey Wildlife Trust, who advise Elmbridge Borough Council on ecology matters, it was determined that bat and GCN surveys were required to be undertaken to inform the above referenced hybrid planning application. It was also determined that reptile surveys could be undertaken at the reserved matters stage to inform any forthcoming reserved matters application.
- 1.6. **Table 1.1** below sets out the sites where bat and GCN surveys were found to be required, as set out in the PEA and PBRA report. Each of the sites highlighted as having the potential to support roosting bats in **Table 1.1** below had buildings and/or trees present within its individual boundary with the potential to support roosting bats. With respect to GCN, site 3 possessed an on-site ditch. The



remainder of the sites with the potential to support GCN did not have water bodies on-site, but fell within 250m (English Nature, 2004) of a suitable waterbody and supported terrestrial habitat(s) suitable for GCN, as set out in the PEA and PBRA.

Table 1.1: Summary of site locations, requirement for further bat and/or GCN surveys and corresponding plans

Site Name	OS Grid Reference	Bats		GCN	Habitat Features Plan Reference
		Buildings	Trees		
Site 1	TQ 13819 64939	Yes	Yes	No	11932/P01a
Site 2	TQ 14059 64895	Yes	No	No	11932/P02a
Site 3	TQ 13736 65640	Yes	No	Yes	11932/P03a
Site 4	TQ 14683 65584	No	No	Yes	11932/P11
Site 5	TQ 14436 65306	Yes	Yes	Yes	11932/P05a
Site A	TQ 14030 64910	Yes	Yes	No	11932/P06a
Site B	TQ 14158 65142	No	No	No	N/A
Site C	TQ 14164 65375	Yes	No	Yes	11932/P08a
Site D	TQ 13878 65246	No	No	No	N/A
Race Track Widening (Sites E1 and E2)	TQ 13722 65162 and TQ 14644 65713 (referred to as E1 and E2 respectively; see masterplan reference below)	No	No	No	N/A
Site F	TQ 14197 65072	Yes	Yes	No	11932/P16a

Purpose

1.7. The purpose of this report is to:

- Use available background data and results of field surveys to describe and evaluate the ecological features present within the likely 'zone of influence' (ZoI)¹ of the proposed development;
- Describe the actual or potential ecological issues and opportunities that might arise as a result of the site's proposed development; and

¹ Defined as the area over which ecological features may be subject to significant effects as a result of activities associated with a project and associated activities (CIEEM 2018).

- Where appropriate, make recommendations for mitigation of adverse effects and ecological enhancement, to ensure conformity with policy and legislation listed in **Appendix 1**.
- 1.8. This assessment and the terminology used are consistent with the 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (CIEEM, 2018).



Section 2: Methodology

Definitions

- 2.1. The masterplan site is shown by the blue-line boundary as shown by plan **11071FE_101_G_Masterplan**, prepared by PRC Architecture and Planning. The red line boundaries illustrated on the aforementioned plan show the individual sites (1-5 and A-F), as defined in **Table 1.1** above.
- 2.2. A 2km search radius was utilised for protected and priority species records² during the PEA and PBRA assessment. The results presented for bats and GCN in the PEA and PBRA report are reproduced here, for context.

Phase 2 Protected Species Surveys

- 2.3. **Table 2.1** below lists the surveys conducted at the site. The respective Appendix should be referred to for further information concerning survey methods, constraints, and data collected.

Survey	Date	Appendix	Summary
Bat Emergence/Re-entry Surveys	May 2019	3	Buildings within sites 1, 2, 3, 5, A, C and F that may/will be impacted by the proposals were found to possess potential to support roosting bats and were therefore subject to emergence/re-entry surveys. The timetable of surveys was agreed with SWT on 25 th April 2019 (see Appendix 5.1).
Bat Endoscope Inspection	May 2019	3	An endoscope inspection of individual features of Site 1 Building B1 and Site 2 Building B2, following potential emergence events.
Bat Tree Climbing Surveys	February – May 2019	3	Trees within sites 1, 5, A and F that may/will be impacted by the proposals were found to have the potential to support roosting bats. As such, a series of endoscope inspections were undertaken between February 2019 - May 2019 to determine presence/likely absence. This method of survey was agreed with SWT on 11 th March 2019 (see Appendix 5.2).

² UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed under Section 41 [42 in Wales] of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.

Survey	Date	Appendix	Summary
GCN Surveys	March – April 2019	4	Four visits were conducted to determine presence/likely absence of GCN in ponds assessed as suitable during the HSI (Ditch D1 and Ponds P2-P6).

Table 2.1 Detailed Phase 2 Surveys undertaken to inform the assessment.

Evaluation

- 2.4. The evaluation of species is defined in accordance with published guidance (CIEEM, 2018). The level of importance of specific ecological features is assigned using a geographic frame of reference, with international being most important, then national, regional, county, borough, local and lastly, within the site boundary only.
- 2.5. Evaluation is based on various characteristics that can be used to identify ecological features likely to be important in terms of biodiversity. For the purposes of this report, these include consideration for species populations or assemblages.

Quality Control

- 2.6. The contents of this report have been prepared by ecologists at Tyler Grange LLP, who are members of CIEEM and abide by the Institute's Code of Professional Conduct.



Section 3: Bat and GCN Survey Results

Bats

- 3.1 Within 2km of the site, records for brown long-eared bat *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus*, Nathusius pipistrelle *Pipistrellus nathusii*, noctule *Nyctalus noctula*, and serotine *Eptesicus serotinus* were identified.

Detailed Roost Surveys (Buildings)

- 3.2 **Table 3.1** below summarises the buildings that were subject to survey within each site boundary. The table also presents a summary for each building. Where surveys are highlighted in yellow, this indicates that additional surveys (emergence/re-entry and where appropriate, endoscope inspections) were added to increase the survey effort following potential emergence/re-entry events. The full building survey results, including metadata, are shown in **Appendix 3**.

Site	Building No.	Potential (Determined during PBRA)	No. of Visits Undertaken	Date	Type of Survey	Results
Site 1	B1	Low	2 +1 endoscope	07/05/2019	Emergence	1 x possible emergence of common pipistrelle - endoscope survey and additional dawn added
				16/05/2019	Endoscope	No bats or signs of bats observed
				23/05/2019	Re-entry	No bats re-entered
	B2	Low	1	09/05/2019	Emergence	No bats emerged
Site 2	B2	Low	3 +1 endoscope	08/05/2019	Emergence	Possible emergence from south-east aspect, probably myotis spp - endoscope survey and additional dawn survey added
				16/05/2019	Endoscope	No bats or signs of bats observed
				23/05/2019	Re-entry	Confirmed re-entry of 1 x Daubenton's. Visit added due to re-entry event
				29/05/2019	Emergence	No bats emerged
Site 3	B3	Low	1	03/05/2019	Re-entry	No bats emerged
Site 5	B3	Low	1	09/05/2019	Emergence	No bats emerged
	B4	Low	1	09/05/2019	Emergence	No bats emerged



Site A	B2	Moderate	2	02/05/2019	Re-entry	No bats re-entered
				16/05/2019	Emergence	No bats emerged
	B3	Low	1	08/05/2019	Emergence	No bats emerged
	B4	High	3	01/05/2019	Emergence	No bats emerged
				15/05/2019	Re-entry	No bats re-entered
				29/05/2019	Emergence	No bats emerged
	B5	Low	1	09/05/2019	Emergence	No bats emerged
	B10	Moderate	2 (3 done in total due to additional resource availability)	02/05/2019	Emergence	No bats emerged
				08/05/2019	Re-entry	No bats re-entered
17/05/2019				Re-entry	No bats re-entered	
Site C	B3	Low	1	10/05/2019	Re-entry	No bats re-entered
	B4	Low	1	10/05/2019	Re-entry	No bats re-entered
	B5	Low	1	10/05/2019	Re-entry	No bats re-entered
Site F	B1	Low	1	14/05/2019	Emergence	No bats emerged

Table 3.1: Summary of bat surveys undertaken for buildings

- 3.3 As noted above, all surveys aside from that undertaken for Site 2 Building B2 found no evidence of roosting bats. Given that Site 1 Building B1 was a possible emergence only and further survey through an additional dawn re-entry visit and an endoscope inspection found no bats/signs of roosting bats to be present, it is considered likely that no roosting bats are present in Site 1 Building B1.
- 3.4 One Daubenton's bat *Myotis daubentonii* was observed re-entering the southern-most fascia gap during the re-entry survey on 29th May 2019. As such, due to the presence of the single bat it is considered that this gap between the exterior wall and the raised fascia board is likely a confirmed Daubenton's day roost.

Detailed Roost Surveys (Trees)

- 3.5 No roosting bats were found during the tree climbing inspections of the trees identified as having the potential to support roosting bats during the PBRA. **Table 3.2** below summarises the trees that were subject to survey within each site boundary. The table also presents a summary for each tree. The full tree climbing results, including details of individual PRFs and the associated metadata, are shown in **Appendix 3**.
- 3.6 It should be noted that the trees within Site F were not subject to an initial PBRA. However, during the first tree climbing visit for Sites 1, 5 and a PBRA was carried out and trees within Site F climbed where required.
- 3.7 The trees were climbed collectively across three site visit dates. All trees requiring tree climbing inspections were surveyed during visit 1, with those trees requiring follow up visits surveyed during visits 2 for moderate potential trees, and visits 2 and 3 for high potential trees. The survey dates were as follows:
- Visit 1: 20th/21st February 2019
 - Visit 2: 1st May 2019



- Visit 3: 28th May 2019

Site	Building No.	Bat Roost Potential (Determined during PBRA)	Bat Roost Potential (Following 1 st climbed visit)	Total Number of Visits	Result
Site 1	T1	Low	Negligible	1	No roosting bats or signs of roosting bats present
	T2	High	Moderate	2	
Site 5	T1	Moderate	Low	1	
	T3	Moderate	Low	1	
Site A	T1	Moderate	High	3	
	T2	High	Moderate	2	
	T3	Moderate	Low	1	
	T4	Moderate	Low	1	
	T5	High	Low	1	
	T6	High	Low	1	
	T7	High	Low	1	
Site F	T8	Moderate	Low	1	
	T1	N/A	High	3	
	T2-T20	N/A	Negligible/Low	1	

Table 3.2: Summary of bat surveys undertaken for trees

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- 3.8 One record of GCN was identified within 2km of the site, dating from 2016.
- 3.9 No GCN, their larvae, or their eggs were recorded in the ponds/ditch surveyed (Ponds P2-P6 and Ditch D1; see **Appendix 4** for detailed survey results and associated metadata). As such, it is considered likely that GCN are absent from the masterplan site.



Section 4: Potential Impacts, Mitigation, and Enhancement Strategy

Site Proposals

- 4.1. The masterplan for the hybrid planning application (**11071FE_101_G_Masterplan**, prepared by PRC Architecture and Planning) is provided in **Appendix 2**, and shows the blue-line boundary for the masterplan site with the individual red-line boundaries for the proposed development/rationalisation areas within the masterplan site.
- 4.2. The potential impacts with respect to development of the site are set out below, with reference to legislation and planning policy which is summarised in **Appendix 1**.

Potential Impacts, Mitigation, and Enhancement

- 4.3. Both the Countryside and Rights of Way (CRoW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006 give the importance of conserving biodiversity a statutory basis. This requires government departments (including Local Planning Authorities) to have regard for biodiversity in carrying out their obligations (including determination of planning applications) and to take positive steps to further the conservation of listed species and habitats. These articles of legislation require Elmbridge Borough Council to take measures to protect species or habitats from the adverse effects of development, where appropriate, by using planning conditions or obligations.
- 4.4. The masterplan has been designed to, where possible, maintain and protect those features of highest ecological importance. Where there are potential impacts during the construction and operational phases of the development on the ecological features described in **Section 3**, these are described below. Where impacts would trigger legislation or planning policy (as set out in **Appendix 1**), the requirement for mitigation is noted.

Protected and Priority Fauna

Bats (Roosting)

- 4.5. As European protected species, all UK bats receive legal protection in England under the Conservation of Habitats and Species Regulations (CoHSR) 2017 and the Wildlife and Countryside Act (WCA) 1981 (as amended). Several species are also listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (see **Appendix 1** for further details of relevant legislative protection).

Potential Impacts (Trees)

- 4.6. All trees subject to climbed endoscope inspections were found not to support roosting bats. As such, no specific mitigation measures with respect to bat roosts in trees at sites 1, 5 A and F are required.
- 4.7. As per the method of survey agreed with SWT on 11th March 2019 (see **Appendix 5.2**), should any of the trees that were subject to a climbing inspection be required to be modified/removed as part of the proposals (once fixed at the reserved matters stage), these trees should be subject to a final climbed endoscope inspection to ensure no roosting bats are present within the identified PRF(s).



Potential Impacts (Buildings)

- 4.8. All buildings within Sites 1, 3, 5, C and F that were subject to emergence/re-entry surveys (and in two instances, endoscope inspections) were found to not support roosting bats.
- 4.9. During the dawn re-entry survey carried out on Site 2 Building B2 (also labelled as Site A Building B3), a single Daubenton's bat was observed re-entering beneath a gap formed by a lifted fascia on the north-eastern elevation of the building. The bat was identified as a Daubenton's using sound files recorded on an Anabat Express bat detector during the survey and analysed using Analook W Version 4.3x. Given that the Daubenton's bat was found to be roosting alone, the roost is characterised as being a day roost likely to be used by a single bat or very low numbers of bats.
- 4.10. Due to the presence of a single day roost of common and widespread bat species at Site 2, the roosting bat assemblage present at Site 2 is considered to be of **local ecological importance**.

Mitigation

- 4.11. Under current proposals, it is considered that Site 2 Building B2 will be demolished to facilitate the proposed residential development at Site 2. As such, this will likely result in the loss of the confirmed Daubenton's day roost and will therefore require a Natural England (NE) development licence to facilitate the works.
- 4.12. The building labelled as Site A Building B3 is the same building as Site 2 Building B2 (as the building extends across the adjacent boundaries of Sites 2 and A). The Daubenton's roost was found to be roosting underneath a raised fascia c. 15m from the boundary of Site A. Therefore, as Site 2 Building B2 is to be modified/demolished under an appropriate licence, the same approach should be applied to Site A Building B3, as any works/modification to the section of building within Site A may have an impact on the Daubenton's day roost. As a precautionary approach, the area of the building to be modified/demolished under the appropriate licence should extend to 50m along Site 2 Building B2 and into Site A Building B3. Any area of the building beyond 50m from the confirmed roost location may be modified/demolished without the need for a licence.
- 4.13. The NE development licence will need to be applied for once planning consent is granted, before impact to or removal of the building can take place. This license will describe measures to minimise the risk that bats will be killed, injured or disturbed during the construction phase of the development and allow the destruction of the roost(s), where necessary. As the roost has been categorised as a day roost for low numbers of common and widespread bat species, it is considered of low conservation significance. A Bat Low Impact Class Licence (BLICL) from NE can, therefore, be used in place of a standard European Protected Species Mitigation Licence (EPSML), as an EPSML generally takes longer to process. The BLICL will enable the destruction of any roosts that are found to be present to proceed without contravening relevant legislation.
- 4.14. Once the BLICL is granted, given that the roost is considered to be a summer roost works should be undertaken between September – May, as Daubenton's are likely to be occupying hibernation sites during this period and are therefore less likely to be directly impacted (injured or killed) by the proposed works (Mitchell-Jones, 2004). Demolition of the building should be undertaken under the supervision of an Ecological Clerk of Works (ECoW); if any bats are found during works the bats will be translocated to the artificial roost features that have already been installed, namely tree mounted bat boxes (see below).
- 4.15. To compensate for roost loss, and to provide increased opportunities for roosting bats, several artificial roost features should be included within the design of the proposed development. These artificial roost features would take the form of bat boxes which are generally deemed to be acceptable mitigation for roosts of low conservation significance. As the roost is formed of a gap beneath lifted fascia board, the



use of bat boxes that provide crevices for roosting will provide 'like-for-like' replacement roost opportunities.

- 4.16. The integrated bat boxes should be factored into the new building design at the reserved matters stage, with hanging bat boxes affixed to trees nearby to the area of woodland to the north of Site A. The bat boxes that should be included within the scheme to compensate for the loss of the aforementioned roost are as follows:
- Two integrated bat boxes (such as Istock Enclosed Bat Box 'C') to be incorporated into the buildings to be constructed at the site. Boxes will be placed on either west, south or east facing walls; and
 - Two bat boxes (Schwegler 1FF type) will be placed on south-westerly, south and south-eastern aspects of tree trunks to provide a range of roosting conditions.
- 4.17. The need for a 'Sensitive Lighting Management Plan' to be submitted at the reserved matters stage has been detailed in the formal consultation response from Surrey Wildlife Trust dated 14th May 2019.
- 4.18. Lighting at the site during the construction and operation phases of the proposed development should be sympathetic to bats that may be roosting at the site or utilising the site and nearby habitats for foraging and commuting activity. The lighting at the site should be designed to minimise disturbance to bats (e.g. low bollard lighting where possible, use of hoods and cowls on lamps and use of low pressure sodium or, where glass glazing is preferred, use of high pressure sodium instead of metal halide lamps – Collins, 2016; BCT and Institute of Lighting Engineers, 2009). The inclusion of sensitive lighting should focus on minimising light spill onto the most suitable areas of habitat, namely the existing boundary/linear features throughout the masterplan site and the woodland to the north of Site A.
- 4.19. Enhancements for the bat population present across the masterplan site are given in the 'Enhancements' section below.

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Potential impacts

- 4.20. The presence/likely absence surveys for GCN found no GCN to be present in any of the ponds/ditches surveyed within the masterplan site. This negative result, in conjunction with the lack of suitably connected waterbodies in the wider landscape, mean that it is considered unlikely that GCN are present within the masterplan site or any of the individual sites. As such, no mitigation for GCN at Sites 3, 4, 5 and C is required.

Enhancements

- 4.21. A site-wide ecological enhancement plan for the masterplan site is being prepared. The site-wide enhancement plan will take the form of a Landscape and Ecological Management Plan (LEMP) and provide enhancements for bats, GCN and biodiversity as a whole across the site. The LEMP will also include a management timetable detailing management prescriptions and timing of management activities to maximise the biodiversity value at the masterplan site. Enhancement measures should include the following:
- Installation of bat and bird boxes, and insect hotels;
 - Nectar rich planting to increase the invertebrate food resource at the site, for species such as birds and bats;



- Establishment of wildflower grassland;
- Establishment of hedgerows/new native woody boundary features;
- Replacement and additional native tree planting;
- Enhancement of on-site ponds, for example through the planting of emergent and marginal vegetation; and
- Establishment of refugia/deadwood piles nearby to ponds for amphibians such as smooth newt (detected as present during newt surveys).

4.22. It is considered that through the implementation of the LEMP for the masterplan site, a net gain for biodiversity can be achieved for the masterplan site, which encompasses the individual development sites.



Section 5: Conclusions

- 5.1. With the implementation of the mitigation and enhancement strategy described in Section 4, the proposed development would be in conformity with relevant planning policy and legislation, as listed in **Appendix 1** (namely Policies CM15 and DM21).
- 5.2. All trees subject to climbed endoscope inspections were found not to support roosting bats. As such, no specific mitigation measures with respect to bat roosts in trees at sites 1, 5 A and F are required. As per the method of survey agreed with SWT on 11th March 2019 (see **Appendix 5.2**), should any of the trees that were subject to a climbing inspection be required to be modified/removed as part of the proposals (once fixed at the reserved matters stage), these trees should be subject to a final climbed endoscope inspection to ensure no roosting bats are present within the identified PRF(s).
- 5.3. All buildings within Sites 1, 3, 5, C and F that were subject to emergence/re-entry surveys (and in two instances, endoscope inspections) were found to not support roosting bats.
- 5.4. During the dawn re-entry survey carried out on Site 2 Building B2 (also labelled as Site A Building B3), a single Daubenton's bat was observed re-entering beneath a gap formed by a lifted fascia on the north-eastern elevation of the building. Given that the Daubenton's bat was found to be roosting alone, the roost is characterised as being a day roost likely to be used by a single bat or very low numbers of bats.
- 5.5. As the roost has been categorised as a day roost for low numbers of common and widespread bat species, a Bat Low Impact Class Licence (BLICL) from NE can be used to undertake the required works. Once the BLICL is granted, any modification/demolition works should be undertaken between September – May, as Daubenton's are likely to be occupying hibernation sites during this period and are therefore less likely to be directly impacted (injured or killed) by the proposed works (Mitchell-Jones, 2004). Demolition of the building should be undertaken under the supervision of an Ecological Clerk of Works (ECoW); if any bats are found during works the bats will be translocated to the artificial roost features that have already been installed, namely tree mounted bat boxes (see below).
- 5.6. To compensate for roost loss, and to provide increased opportunities for roosting bats, several artificial roost features should be included within the design of the proposed development. These bat boxes should be integrated into the new building design at the reserved matter stage, with hanging bat boxes affixed to trees nearby to the area of woodland to the north of Site A. As the roost is formed of a gap beneath lifted fascia board, the use of bat boxes that provide crevices for roosting will provide 'like-for-like' roosting opportunities.
- 5.7. The bat boxes provided to replace the known bat roost should comprise two integrated bat boxes (such as Istock Enclosed Bat Box 'C') to be incorporated into the buildings to be constructed within Site 2. Two bat boxes (Schwegler 1FF type) should be placed on south-westerly, south and south-eastern aspects of tree trunks adjacent to the area of woodland north of Site A to provide a range of roosting conditions.
- 5.8. Lighting at the site during the construction and operation phases of the proposed development should be sympathetic to bats that may be roosting at the site or utilising the site and nearby habitats for foraging and commuting activity. This will be detailed in a 'Sensitive Lighting Management Plan' to be submitted at the reserved matters stage, as detailed in the consultation response from Surrey Wildlife Trust dated 14th May 2019.
- 5.9. The presence/likely absence surveys for GCN found no GCN to be present in any of the ponds/ditches surveyed within the masterplan site. It is therefore considered unlikely that GCN are present within the



masterplan site or any of the individual sites. As such, no mitigation for GCN at Sites 3, 4, 5 and C is required.

5.10. A site-wide ecological enhancement plan for the masterplan site is being prepared. The site-wide enhancement plan will take the form of a Landscape and Ecological Management Plan (LEMP) and provide enhancements for bats, GCN and biodiversity generally, with the aim of achieving a net gain for biodiversity across the masterplan site. The LEMP will include the following:

- Installation of bat and bird boxes, and insect hotels;
- Nectar rich planting to increase the invertebrate food resource at the site, for species such as birds and bats;
- Establishment of wildflower grassland;
- Establishment of hedgerows/new native woody boundary features;
- Replacement and additional native tree planting;
- Enhancement of on-site ponds, for example through the planting of emergent and marginal vegetation; and
- Establishment of refugia/deadwood piles nearby to ponds for amphibians such as smooth newt (detected as present during newt surveys).



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Appendices

- Appendix 1: Legislation and Planning Policy
- Appendix 2: Site Masterplan
- Appendix 3: Bat Survey Methodology and Results
- Appendix 4: Great Crested Newt Survey Methodology and Results
- Appendix 5: Correspondence with Surrey Wildlife Trust



Appendix 1: Legislation and Planning Policy



Appendix 1: Legislation and Planning Policy

A1.1. This section summarises the legislation and national, regional and local planning policies, as well as other reference documents, relevant to the baseline ecology results.

Legislation

A1.2. Specific habitats and species receive legal protection in the UK under various pieces of legislation, including:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2010
- The Countryside and Rights of Way Act 2000
- The Natural Environment and Rural Communities Act 2006
- The Hedgerows Regulations 1997
- The Protection of Badgers Act 1992

A1.3. The European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, often referred to as the 'Habitats Directive', provides for the protection of key habitats and species considered of European importance. Annexes II and IV of the Directive list all species considered of community interest. The legal framework to protect the species covered by the Habitats Directive has been enacted under UK law through The Conservation of Habitats and Species Regulations 2010 (as amended).

A1.4. In Britain, the WCA 1981 (as amended) is the primary legislation protecting habitats and species. SSSIs, representing the best examples of our natural heritage, are notified under the WCA 1981 (as amended) by reason of their flora, fauna, geology or other features. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants.

A1.5. The CRoW Act 2000 strengthens the species enforcement provisions of the WCA 1981 (as amended) and makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site.

Planning Policy

National Planning Policy Framework (NPPF), July 2018

A1.6. The National Planning Policy Framework (NPPF) was published in July 2018 and sets out the Government's planning policies for England and how these should be applied. It replaces the first National Planning Policy Framework published in March 2012.

A1.7. Paragraph 11 states that:

“Plans and decisions should apply a presumption in favour of sustainable development.”

A1.8. Section 15 of the NPPF (paragraphs 170 to 177) considers the conservation and enhancement of the natural environment.

A1.9. Paragraph 170 states that planning and decisions should contribute to and enhance the natural and local environment by:



- a) *“protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; and*
- c) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures”.*

A1.10. Paragraph 171 states that plans should distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.

A1.11. Paragraph 174 states that in order to protect and enhance biodiversity and geodiversity, plans should:

- a) *“Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- b) *promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.”*

A1.12. When determining planning applications, Paragraph 175 states that local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- a) *“if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁵⁸ and a suitable compensation strategy exists; and*
- d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”*

A1.13. As stated in paragraph 176 the following should be given the same protection as habitats sites:

- a) *“potential Special Protection Areas and possible Special Areas of Conservation;*
- b) *listed or proposed Ramsar sites; and*



- c) *sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.*"

A1.14. Paragraph 177 states that the presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined.

Elmbridge Core Strategy

A1.15. The Elmbridge Core Strategy³ (2011) sets out the vision, spatial strategy and core policies that are used for shaping future development in the Borough up to 2026.

A1.16. The key policies within the Local Plan relating to ecology include:

- Policy CS14: Green Infrastructure, which states:

'The Council will protect, enhance and manage a diverse network of accessible multi-functional green infrastructure by..... Safeguarding important trees, woodlands and hedgerows and securing provision of soft landscaping measures in new development, focusing on the use of native species, particularly trees, which are an important feature of the Elmbridge landscape, and taking opportunities to create links with the wider green infrastructure network.'

- Policy CS15: Biodiversity, which states:

The Council will seek to avoid loss and contribute to a net gain in biodiversity across the region and the objectives of the Surrey Biodiversity Action Plan (BAP), by:

'1. Protecting and seeking to improve all sites designated for their biodiversity importance, as identified on the proposals map, in accordance with PPS9: Biodiversity and Geological Conservation and CS13-Thames Basin Heaths Special Protection Area (SPA), including those sites considered as being relevant to the integrity of the South West London Waterbodies SPA and Ramsar site. Criteria based policies against which proposals will be judged for any development on, or affecting, sites of regional or local significance will be brought forward through future DPDs that address Development Management and Site Allocations;

2. Support the implementation of the Regional Forestry and Woodland Framework by: Protecting all woodland, including ancient woodland, as shown on the proposals map, from damaging development and land uses; Promoting the effective management, and where appropriate, extension and creation of new woodland areas including, in association with areas of major development, where this helps to restore and enhance degraded landscapes, screen noise and pollution, provide recreational opportunities, helps mitigate climate change, and contributes to floodplain management; Replacing woodland unavoidably lost through development with new woodland on at least the same scale; Promoting and encouraging the economic use of woodlands and wood resources, including wood fuel as a renewable energy source; Promoting the growth and procurement of sustainable timber products.

3. Protecting and enhancing BAP priority habitats and species and seeking to expand their coverage by supporting the development of the Biodiversity Opportunity Areas(12)(13);as shown on the proposals map;

4. Managing and maintaining a mosaic of habitats and rich variety of wildlife across the Council's landholdings in accordance with the Elmbridge Countryside Strategy;

³ <https://www.elmbridge.gov.uk/planning/local-plan/>

5. Working in partnership (14) to re-store and enhance: the Thames Basin Heath SPA, in accordance with CS13-Thames Basin Heaths SPA, which is an area of strategic opportunity for biodiversity improvement. Brooklands Community Park and Esher Commons Site of Special Scientific Interest (SSSI) in accordance with the Council's most up-to-date mitigation strategy for the Thames Basin Heath SPA and the Esher Commons SSSI Restoration and Management Plan;

6. Maximising the contribution of other green spaces and features (15), where appropriate, to the area's biodiversity resources including identifying and developing wildlife corridors(16) to provide ecological 'stepping stones' and form a coherent local and regional biodiversity network in accordance with CS12-The River Thames and its tributaries and CS14-Green Infrastructure;

7. Directing development to previously developed land in accordance with CS1-Spatial Strategy, taking account of its existing biodiversity value; and

8. Ensuring new development does not result in a net loss of biodiversity and where feasible contributes to a net gain through the incorporation of biodiversity features.'

A1.17. The Development Management Plan (DMP) document contains more detailed "every day" policies that all planning applications are assessed against. The key policy within the DMP relating to ecology is:

- Policy DM21: Nature Conservation and Biodiversity, which states:
 - a. In accordance with Core Strategy policy CS15 – Biodiversity, all new development will be expected to preserve, manage and where possible enhance existing habitats, protected species and biodiversity features. The Council will work in partnership to explore new opportunities for habitat creation and restoration.
 - b. Support will be given to proposals that enhance existing and incorporate new biodiversity features, habitats and links to habitat networks into the design of buildings themselves as well as in appropriate design and landscape schemes of new developments with the aim of attracting wildlife and promoting biodiversity. Conditions will be used to secure the provision of mitigation measures, as appropriate.
 - c. Development affecting designated international sites of biodiversity importance and compensatory sites will be considered against Core Strategy policies CS13 – Thames Basin Heaths Special Protection Area, CS15 – Biodiversity, the Framework and relevant legislation.
 - d. Development affecting national sites of biodiversity importance will not be permitted if it will have an adverse effect, directly or indirectly, individually or in combination, on the site or its features. In exceptional circumstances, proposals that have an adverse effect on a national site may be permitted if the benefits of the development clearly outweigh the harm. If a development is approved under these circumstances, appropriate avoidance, mitigation and compensation will be sought wherever possible.
 - e. Development affecting locally designated sites of biodiversity importance or sites falling outside these that support national priority habitats or priority species will not be permitted if it will result in significant harm to the nature conservation value of the site or feature.
 - f. Sites identified on the Policies Map as having potential to be designated in future as Suitable Accessible Natural Greenspace (SANG) will be protected from development that may compromise its ability to serve that function, taking into account the level of existing SANG when the development is proposed and any wider benefits of the proposal.



Biodiversity Actions Plans

- A1.18. The UK Post-2010 Biodiversity Framework succeeded the UK BAP partnership in 2011 and covers the period 2011 to 2020. However, the lists of Priority Species agreed under the UK BAP still form the basis of much biodiversity work in the UK. The current strategy for England is 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' published under the UK Post-2010 UK Biodiversity Framework. Although the UK BAP has been superseded, Species Action Plans (SAPs) and Habitat Action Plans (HAPs) developed for the UK BAP remain valuable resources for background information on priority species under the UK Post-2010 Biodiversity Framework.
- A1.19. Most areas now possess a Local BAP (LBAP) to complement the national strategy where priority habitats and species are identified, and targets set for their conservation. BAP's are the key nature conservation initiative in the UK, working at national, regional and local levels.
- A1.20. The Surrey Biodiversity Action Plan was produced in 1999 and valid until 2010. The Surrey Nature Partnership, which produced the LBAP, has now produced a new 'Biodiversity and Planning in Surrey'⁴ (2018) document which aims to help identify when and where biodiversity must be protected by the planning system, as well as how to identify opportunities to deliver biodiversity enhancements as 'net gains' in the most effective way.

Protected / Priority Species Legislation

Bats

- A1.21. As European protected species, all UK bats receive legal protection in England under the Conservation of Habitats and Species Regulations (CoHSR) 2017 and the Wildlife and Countryside Act (WCA) 1981 (as amended).
- A1.22. All British species of bat are listed under Schedule 2 of the CoHSR 2017 as European Protected Species (EPS) regulation 41 (1), which makes it an offence to:
- Deliberately capture or injure an EPS;
 - Deliberately disturb an EPS; and
 - Damage or destroy a breeding site or resting place of an EPS.
- A1.23. All British bats are listed in Schedule 5 of the WCA. Section 9 of the WCA affords protection to Schedule 5 species against:
- Intentional killing, injury, or taking;
 - Possessing (including parts or derivatives);
 - Intentional or reckless damage, destruction, or obstruction of any structure or place used for shelter, or protection; and
 - Selling, offering, or exposing for sale (alive or dead, including parts or derivatives).
- A1.24. Several British bat species are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, which states that decision makers such as Local Planning

⁴ <https://surreynaturepartnership.org.uk/our-work/>



Authorities must have regard to Species of Principal Importance (SoPI)⁵ in all their activities, including when making decisions on planning applications.

- A1.25. The following bat species are SoPIs: barbastelle *Barbastellus*, Bechstein's bat *Myotis bechsteinii*, brown long-eared bat *Plecotus auratus*, greater horseshoe *Rhinolophus ferrumequinum*, lesser horseshoe *R. hipposideros*, noctule *Nyctalus noctula*, and soprano pipistrelle *Pipistrellus pygmaeus*. These are the species found in England which were identified as requiring action under the UK Biodiversity Action Plan (BAP) and which continue to be regarded as conservation priorities under the UK Post-2010 Biodiversity Framework.

Great Crested Newt and Amphibians

- A1.26. In England and Wales, great crested newts (GCN) and their habitats are predominantly protected under the Conservation of Habitats and Species Regulations (2010), with other complimentary legislation comprised of the Wildlife and Countryside Act (1981) (as amended); the Countryside and Rights of Way Act (CROW, 2000); and the Natural Environment and Rural Communities Act (NERC, 2006).
- A1.27. Common and widespread species of amphibian, including smooth and palmate newts, common frog, and common toad, are protected only by Section 9 (schedule 5) of the Wildlife and Countryside Act 1981. This prohibits sale, barter, exchange, transporting for sale and advertising to sell or buy these animals.

⁵ UK priority species and habitats are those subject to conservation action and referred to as Species of Principal Importance (SoPIs) or Habitats of Principal Importance (HoPIs). They are listed as Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. Section 40 of the NERC Act states that local planning authorities must have regard for the conservation of both SoPIs and HoPIs.

Appendix 2: Site Masterplan



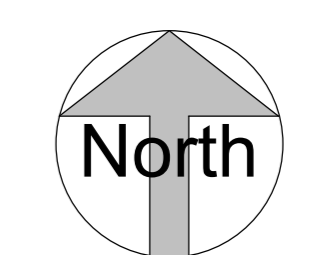
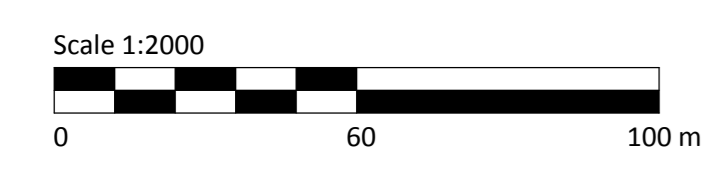


Figured dimensions only are to be used. All dimensions to be checked on site. Difference between drawing and approved drawings and specifications or site. For planning purposes, drawings can be used using the scale bar.

Revisions:	Drawn / Check:	Date:
A	Building updated to date	MC 04.12.18
B	Round up of sites, boundaries adjusted to trip / Tiles, Track widening boundaries added	MC 08.01.19
C	Site boundaries added	MC 10.01.19
D	Site G boundary line removed	MC 17.01.19
E	Site F removed, Site 2 boundary adjusted	MC 23.01.19
F	Site F added, parking layouts updated	MC 03.02.19
G	Site F zoning added, Site 5 nursery boundary removed	MC 15.02.19

Legend

- Jockey Club Race course boundary line
- Application Site Boundary



Preliminary Issue

Client:
Jockey Club Racecourses Ltd

Project:
Sandown Park

24 Church St, West, Woking, Surrey, GU24 0HT
01483 494 350
info@jrc-group.com
www.jrc-group.com



Drawing Title:
Masterplan

Scale @ A0:	Checked by:	Date:
1:2000	MC	12.11.2018

Job No:	Stage / Drawing No:	Rev:
11071	FE_101	G

Issue Status:
 Construction Preliminary
 Information Approval
 Tender

Offices:
 Woking
 London
 Milton Keynes
 Worcester

PRC Architecture & Planning
 15/02/2019 14:31:00

Appendix 3: Bat Survey Methodology, Results and Mitigation/Enhancement Measures



Appendix 3: Bat Survey Methodology, Results and Mitigation/Enhancement Measures

Survey Methodology

A3.1 A number of bat surveys were conducted following standard methodologies set out in the Bat Mitigation Guidelines (Mitchell-Jones, A.J., 2004), the Bat Workers Manual (Mitchell-Jones, A.J. and McLeish, A.P., 2004) and Bat Surveys – Good Practice Guidelines (Collins, 2016). These surveys aimed to determine if a bat roost is present in buildings and trees identified as having suitable bat roosting potential on the development site.

Bat Roost Surveys (Buildings)

A3.2 A total of 15 buildings across sites 1, 2, 3, 5, A, C and F were found to have the potential to support roosting bats during the PBRA. As these buildings were also found to be likely to be impacted by the proposals, these buildings were subject to emergence/re-entry surveys in line with best practice guidance (Collins, 2016). The results of the emergence/re-entry surveys can be found below.

A3.3 The survey timetable was submitted to SWT and agreed by SWT as appropriate on 25th April 2019. The relevant correspondence with SWT can be found at **Appendix 5.1**. Where surveyor positions are referenced, please refer to the relevant Habitat Features Plans appended to this report.

Site A

B2

Surveyor: Christian Cairns		
Date: 02/05/19		
Survey: Re-entry		
Site: A		
Building: B2		
Surveyor Position: 7		
Equipment used: Batbox Duet and Anabat Express (Aragorn)		
Sunrise time: 05:31	Start time: 03:55	End time: 05:37
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	10	10
Notes: No re-entry . No activity.		

Surveyor: Rebekah Baker		
Date: 02/05/19		
Survey: Re-entry		
Site: A		
Building: B2		
Surveyor Position: 3		



Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunrise time: 05:31	Start time: 03:55	End time: 05:37
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Temperature (°C):	10	10
Precipitation (0-2):	0	0
Notes: No re-entry . No activity.		

Surveyor: Aaron Grainger		
Date: 16/05/19		
Survey: Emergence		
Site: A		
Building: B2		
Surveyor Position: 3		
Equipment used: Anabat Swift (Smaug)		
Sunset time: 20:47	Start time: 20:30	End time: 22:17
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2) :	1	0
Precipitation (0-2):	0	0
Temperature (°C):	11	11
Notes: No emergence . No activity.		

Surveyor: Stephanie Coward		
Date: 16/05/19		
Survey: Emergence		
Site: A		
Building: B2		
Surveyor Position: 7		
Equipment used: Batbox Duet and Zoom (Z3)		
Sunset time: 20:47	Start time: 20:30	End time: 22:17
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2) :	1	0
Precipitation (0-2):	0	0
Temperature (°C):	11	11
Notes: No emergence . Low common pipistrelle activity.		



B3 – Also covers Site 2 B2

Surveyor: Stephanie Coward		
Date: 08/05/19		
Survey: Emergence		
Site: A		
Building: B3		
Surveyor Position: 1		
Equipment used: Batbox Duet and Zoom (Woodstock)		
Sunset time: 20:35	Start time: 20:20	End time: 22:05
Weather	At start:	At end:
Cloud cover (0-2):	1	1
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	11	11
Notes: No emergence. No bat activity.		

B4

Surveyor: Aaron Grainger		
Date: 01/05/19		
Survey: Emergence		
Site: A		
Building: B4		
Surveyor Position: 2		
Equipment used: Anabat Express (Legolas)		
Sunset time: 20:23	Start time: 20:08	End time: 22:00
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	1	1
Precipitation (0-2):	1	0
Temperature (°C):	13	12
Notes: No emergence.		

Surveyor: Christian Cairns		
Date: 01/05/19		
Survey: Emergence		
Site: A		
Building: B4		
Surveyor Position: 5		
Equipment used: Batbox Duet and Zoom		
Sunset time: 20:23	Start time: 20:08	End time: 22:00
Weather	At start:	At end:
Cloud cover (0-2):	2	2



Wind (0-2):	1	1
Precipitation (0-2):	1	0
Temperature (°C):	13	12
Notes: No emergence. Low activity of common pipistrelle foraging.		

Surveyor: Rebekah Baker		
Date: 01/05/19		
Survey: Emergence		
Site: A		
Building: B4		
Surveyor Position: 4		
Equipment used: Batbox Duet and Wave		
Sunset time: 20:23	Start time: 20:08	End time: 22:00
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	1	1
Precipitation (0-2):	1	0
Temperature (°C):	13	12
Notes: No emergence. Low common pipistrelle activity, foraging and commuting.		

Surveyor: Nathan Jenkinson		
Date: 15/05/19		
Survey: Re-entry		
Site: A		
Building: B4		
Surveyor Position: 2		
Equipment used: Peersonic and Anabat Express (Aragorn)		
Sunrise time: 05:15	Start time: 03:45	End time: 05:30
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	8	8
Notes: No re-entry. No activity.		

Surveyor: Christian Cairns		
Date: 15/05/19		
Survey: Re-entry		
Site: A		
Building: B4		
Surveyor Position: 4		
Equipment used: Batbox Duet and Anabat Express (Gimli)		
Sunrise time: 05:15	Start time: 03:45	End time: 05:30



Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	8	8
Notes: No re-entry . No activity.		

Surveyor: Leanne Deighton		
Date: 15/05/19		
Survey: Re-entry		
Site: A		
Building: B4		
Surveyor Position: 5		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunrise time: 05:15	Start time: 03:45	End time: 05:30
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	8	8
Notes: No re-entry . No activity.		

Surveyor: Rebekah Baker		
Date: 29/05/19		
Survey: Emergence		
Site: A		
Building: B4		
Surveyor Position: 4		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunset time: 21:05	Start time: 20:50	End time: 23:05
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	2	2
Precipitation (0-2):	0	0
Temperature (°C):	15	15
Notes: No re-entry . Low levels of pipistrelle activity.		

Surveyor: Fiona Baker		
Date: 29/05/19		
Survey: Emergence		
Site: A		
Building: B4		
Surveyor Position: 2		



Equipment used: Echo meter pro 2		
Sunset time: 21:05	Start time: 20:50	End time: 23:05
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	1	2
Precipitation (0-2):	0	0
Temperature (°C):	15	15
Notes: No re-entry . Low levels of activity including noctule.		

Surveyor: Kathryn Killner		
Date: 29/05/19		
Survey: Emergence		
Site: A		
Building: B4		
Surveyor Position: 5		
Equipment used: Echo meter pro and batscanner		
Sunset time: 21:05	Start time: 20:50	End time: 23:05
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	2	2
Precipitation (0-2):	0	0
Temperature (°C):	15	15
Notes: No re-entry . Low levels of pipistrelle activity and noctule.		

B5

Surveyor: Judy Tung		
Date: 09/05/19		
Survey: Emergence		
Site: A		
Building: B5		
Surveyor Position: 6		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunset time: 20:36	Start time: 20:21	End time: 22:06
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	11	11
Notes: No emergence . Low activity of common pipistrelle.		



B10

Surveyor: Ivi Szaboova		
Date: 02/05/19		
Survey: Emergence		
Site: A		
Building: B10		
Surveyor Position: 9		
Equipment used: Batbox Duet and Anabat Express (Aragorn)		
Sunset time: 20:25	Start time: 20:05	End time: 21:55
Weather	At start:	At end:
Cloud cover (0-2):	2	0
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	11	9
Notes: No emergence. Low activity of common pipistrelle.		

Surveyor: Judy Tung		
Date: 02/05/19		
Survey: Emergence		
Site: A		
Building: B10		
Surveyor Position: 8		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunset time: 20:25	Start time: 20:05	End time: 21:55
Weather	At start:	At end:
Cloud cover (0-2):	2	0
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	11	9
Notes: No emergence. Low common pipistrelle activity.		

Surveyor: Stephanie Coward		
Date: 08/05/19		
Survey: Re-entry		
Site: A		
Building: B10		
Surveyor Position: 10		
Equipment used: Batbox Duet and Zoom (Woodstock)		
Sunrise time: 05:22	Start time: 03:52	End time: 05:45
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	0	1



Precipitation (0-2):	2	2
Temperature (°C):	10	9
Notes: No re-entry . No activity.		

Surveyor: Judy Tung		
Date: 08/05/19		
Survey: Re-entry		
Site: A		
Building: B10		
Surveyor Position: 8		
Equipment used: Batbox Duet and Zoom (Snoopy)		
Sunrise time: 05:22	Start time: 03:52	End time: 05:45
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	0	1
Precipitation (0-2):	2	2
Temperature (°C):	10	9
Notes: No re-entry . Very low common pipistrelle activity.		

Surveyor: Aaron Grainger		
Date: 17/05/19		
Survey: Re-entry		
Site: A		
Building: B10		
Surveyor Position: 9		
Equipment used: Batbox Duet and Anabat Swift (Smaug)		
Sunrise time: 05:09	Start time: 03:30	End time: 05:25
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	10	10
Notes: No re-entry . No activity.		

Surveyor: Stephanie Coward		
Date: 17/05/19		
Survey: Re-entry		
Site: A		
Building: B10		
Surveyor Position: 10		
Equipment used: Batbox Duet and Zoom (Z3)		
Sunrise time: 05:09	Start time: 03:30	End time: 05:25
Weather	At start:	At end:



Cloud cover (0-2):	2	2
Wind (0-2):	1	1
Precipitation (0-2):	0	0
Temperature (°C):	10	10
Notes: No re-entry . No Activity.		

Site C

B3

Surveyor: Trevor Boreham		
Date: 10/05/19		
Survey: Re-entry		
Site: C		
Building: B3		
Surveyor Position: 2		
Equipment used: Batbox Duet and Zoom (George)		
Sunrise time: 05:18	Start time: 03:48	End time: 05:32
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	6	6
Notes: No re-entry . No activity.		

B4 and 5

Surveyor: Katherine Bubb		
Date: 10/05/19		
Survey: Re-entry		
Site: C		
Building: B4 + B5		
Surveyor Position: 1		
Equipment used: Batbox Duet and Zoom (Z3)		
Sunrise time: 05:18	Start time: 03:48	End time: 05:32
Weather	At start:	At end:
Cloud cover (0-2):	1	2
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	6	6
Notes: No re-entry . Rained overnight, low activity.		



Site F**B1**

Surveyor: Christian Cairns		
Date: 14/05/19		
Survey: Emergence		
Site: F		
Building: B1		
Surveyor Position: 1		
Equipment used: Batbox Duet and Anabat Express (Gimli)		
Sunset time: 20:45	Start time: 20:30	End time: 22:15
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	14	13
Notes: No emergence. Low common pipistrelle activity.		

Surveyor: Leanne Deighton		
Date: 14/05/19		
Survey: Emergence		
Site: F		
Building: B1		
Surveyor Position: 2		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunset time: 20:45	Start time: 20:30	End time: 22:15
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	14	13
Notes: No emergences. Low activity, possibly pipistrelle sp.		

Site 1**B1**

Surveyor: Stephanie Coward		
Date: 07/05/19		
Survey: Emergence		
Site: 1		
Building: B1		
Surveyor Position: 1		
Equipment used: Batbox Duet and Zoom (Woodstock)		



Sunset time: 20:33	Start time: 20:15	End time: 22:13
Weather	At start:	At end:
Cloud cover (0-2):	1	2
Wind (0-2) :	0	1
Precipitation (0-2):	0	0
Temperature (°C):	15	11
Notes: Possible emergence , but times indicate it could be the same bat detected by other surveyor. Low bat activity.		

Surveyor: Judy Tung		
Date: 07/05/19		
Survey: Emergence		
Site: 1		
Building: B1		
Surveyor Position: 2		
Equipment used: Batbox Duet and Zoom (Snoopy)		
Sunset time: 20:33	Start time: 20:15	End time: 22:13
Weather	At start:	At end:
Cloud cover (0-2):	1	2
Wind (0-2) :	0	1
Precipitation (0-2):	0	0
Temperature (°C):	15	11
Notes: No emergence . Low bat activity.		

Surveyor: Rebekah Baker		
Date: 23/05/19		
Survey: Re-entry		
Site: 1		
Building: B1		
Surveyor Position: 1		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunrise time: 4:58	Start time: 2:58	End time: 5:13
Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2) :	0	0
Precipitation (0-2):	0	0
Temperature (°C):	10	9
Notes: No re-entry . Regular activity, mostly c.pip, mostly heard not seen and likely foraging in woodland behind site 1.		



B2

Surveyor: Ivi Szaboova		
Date: 09/05/19		
Survey: Emergence		
Site: 1		
Building: B2		
Surveyor Position: 3		
Equipment used: Batbox Duet and Anabat Express (Gimli)		
Sunset time: 20:36	Start time: 20:21	End time: 22:06
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	11	11
Notes: No emergence. Very low bat activity.		

Site 2**B2**

Surveyor: Ivi Szaboova		
Date: 08/05/19		
Survey: Emergence		
Site: 2		
Building: B2		
Surveyor Position: 2		
Equipment used: Batbox Duet and Zoom (Snoopy)		
Sunset time: 20:35	Start time: 20:20	End time: 22:05
Weather	At start:	At end:
Cloud cover (0-2):	1	1
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	11	11
Notes: Possible emergence from SE aspect of B2, possibly brown long eared or myotis sp.		

Surveyor: Christian Cairns		
Date: 23/05/19		
Survey: Re-entry		
Site: 2		
Building: B2		
Surveyor Position: 3		
Equipment used: Batbox Duet and Anabat Express (Gimli)		
Sunset time: 4:58	Start time: 2:58	End time: 5:13



Weather	At start:	At end:
Cloud cover (0-2):	0	0
Wind (0-2) :	0	0
Precipitation (0-2):	0	0
Temperature (°C):	10	9
Notes: Confirmed re-entry identified as probable Daubenton's bat after sound analysis. Bat entered fascia gap over 1 st door of stables, adjacent to the lean too.		

Surveyor: Christian Cairns		
Date: 29/05/19		
Survey: Emergence		
Site: 2		
Building: B2		
Surveyor Position: 3		
Equipment used: Batbox Duet and Anabat Swift (Smaug)		
Sunset time: 21:05	Start time: 20:50	End time: 23:05
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	2	2
Precipitation (0-2):	0	0
Temperature (°C):	15	15
Notes: No emergence. No activity.		

Site 3

B3

Surveyor: Ivi Szaboova		
Date: 03/05/19		
Survey: Re-entry		
Site: 3		
Building: B3		
Surveyor Position: 2		
Equipment used: Batbox Duet and Anabat Express (Aragorn)		
Sunrise time: 05:30	Start time: 04:00	End time: 05:45
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	7.5	9
Notes: No emergence. No bat activity.		



Surveyor: Judy Tung		
Date: 03/05/19		
Survey: Re-entry		
Site: 3		
Building: B3		
Surveyor Position: 1		
Equipment used: Batbox Duet and Anabat Express (Legolas)		
Sunrise time: 05:30	Start time: 04:00	End time: 05:45
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	0	0
Temperature (°C):	7.5	9
Notes: No emergence. No bat activity.		

Site 5

B3

Surveyor: Katherine Bubb		
Date: 09/05/19		
Survey: Emergence		
Site: 5		
Building: B3		
Surveyor Position: 1		
Equipment used: Batbox Duet and Zoom (Z3)		
Sunset time: 20:36	Start time: 20:21	End time: 22:06
Weather	At start:	At end:
Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	1	1
Temperature (°C):	11	11
Notes: No emergence. Several bat passes.		

B4

Surveyor: Trevor Boreham		
Date: 09/05/19		
Survey: Emergence		
Site: 5		
Building: B4		
Surveyor Position: 2		
Equipment used: Batbox Duet and Zoom (George)		
Sunset time: 20:36	Start time: 20:21	End time: 22:06
Weather	At start:	At end:



Cloud cover (0-2):	2	2
Wind (0-2) :	1	1
Precipitation (0-2):	1	1
Temperature (°C):	11	11
Notes: No emergence. Several bat passes.		

Endoscope Inspection (Buildings)

- A3.4 During initial emergence/re-entry surveys, surveyors noted two potential emergence events (ie. it was not possible to determine with certainty that the bat observed did emerge from the respective PRF). As such, where this occurred endoscope inspections of these features were undertaken in conjunction with the required survey effort (Collins, 2016) to add certainty to the conclusion of presence/likely absence. The results of these endoscope inspections are set out in the tables below.

Site 1

Surveyor: Stephanie Coward		Licence number: 2015-14527-CLS-CLS	
Date: 16/05/19			
Survey: Daytime			
Site: 1			
Building: B1			
Equipment used: Explorer Premium with 17mm camera			
Start time: 19:30		End time: 20:00	
Weather	At start:	At end:	
Cloud cover (%):	10	10	
Wind (Beaufort Scale) :	0	0	
Precipitation:	Dry	Dry	
Temperature (°C):	14	13	
Notes: Suitable features along B1 were searched using the endoscope where accessible. Although some good features (gaps in mortar within the wall) were assessed as having bat roost potential, no bats were recorded. Further to this, the high-powered torch (clu-light) was used to search under the corrugated roof. Although the entire depth of the roof could not be searched, the torch provided enough light to assess the majority. No bats were seen under the corrugated roof. No bats were noted during the endoscope survey.			

Site 2

Surveyor: Stephanie Coward		Licence number: 2015-14527-CLS-CLS	
Date: 16/05/19			
Survey: Daytime			
Site: 2			
Building: B2			
Equipment used: Explorer Premium with 17mm camera			
Start time: 19:00		End time: 19:30	
Weather	At start:	At end:	



Cloud cover (%):	10	10
Wind (Beaufort Scale) :	0	0
Precipitation:	Dry	Dry
Temperature (°C):	14	14
Notes: Section of corrugated roof was searched for bats using a high-powered torch (clu-light) and an endoscope. As no bats were seen within the first section the roofing felt, the felt was then lifted and the endoscope was used to inspect further areas. In addition to the roofing felt, a crack in the wall was also searched. Only the two features appeared suitable for roosting bats and were searched. No evidence of bats was noted in either feature.		

Tree Climbing Inspections

A3.5 During the PBRA, several trees across sites 1, 5, A and F were found to possess potential to support roosting bats, and under current proposals may be directly or indirectly impacted. As such, these trees were subject to tree climbing inspections between February – May 2019 to determine presence/likely absence of bats. This method of determining presence/likely absence was agreed with SWT on 11th March 2019 (see **Appendix 5.2**).

Site A

Surveyor: John Moorcroft			Licence number: 2016-26469-CLS-CLS	
Survey: Tree climbing inspection and PRF assessment			Site: A	
Tree	Potential	Notes	Category following aerial inspection	Recommendations
T1	Moderate	<p>Sycamore <u>Climbing visit 1</u> PRF1 - Branch tear at 2m on W side (abutting fence) with upwards extension of 30+ cm with dome shape. Clean and dry inside with some smoothing through use by something. No evidence of bats.</p> <p><u>Climbing visit 2</u> No change in features recorded. No bat evidence found.</p> <p><u>Climbing visit 3</u> Cobwebs present obscuring the hole, dry, woodlice and slugs present. No bat evidence found.</p>	High	No further work required.
T2	High	<p>Beech <u>Climbing visit 1</u> PRF1 - Knot hole at 7m, inwards extension only 6cm, upwards 4 cm and downwards 30cm. Very wet at bottom, lots of slugs. No evidence of bats.</p> <p><u>Climbing visit 2</u> No change in features recorded. No bat evidence found.</p>	Moderate	If felled during active season for bats, lower down limb containing PRF 1 and check for bat presence.
T3	Moderate	<p>Beech PRF1 - Knot hole at 6m on E side - large cavity currently in use as a squirrel dry.</p>	Low	If felled during active season, check for use. If it is still in use



				as dray, then it can be felled. If not in use as a dray re-check hole prior to felling for bats.
T4	Moderate	Sycamore <u>PRF1</u> - Knot hole on E side at 4m has insufficient inwards extension and is unlikely to be used for roosting.	Low	If felled during active season, re-check hole prior to felling for bats.
T5	High	Sweet Chestnut <u>PRF1</u> - Pruning wound hole on 1 st limb on W side at 7m has a diameter of 8cm and inwards extension of 30+ cm. Contains bird nest material. Unlikely to be used by bats due to presence of a colony of Ringed-Necked Parakeets (RNP) which are likely to use the hole. Several pruning wounds on S side of main stem, all of which are blind holes which do not form PRF. Branch tear on N side does not have sufficient inward extension to form PRF.	Low	If tree works are planned during active season, re-check hole for bats prior to work.
T6	High	Sweet Chestnut <u>PRF1</u> - Pruning wound on E side at 10m, 12 cm in diameter – in use by RNP. <u>PRF2</u> - Woodpecker hole at 9m, 7 cm in diameter - in use by RNP. <u>PRF3</u> - Large knot hole at 8m, 12 x 8cm in size. Upwards extension over 1m and 30+ inwards. Full of nest material (most likely squirrel or RNP). Unlikely to be used by bats. <u>PRF4</u> – Lifted bark on W side exposed at top and so channels rainwater.	Low	If tree works are planned during active season, re-check holes for use by bats prior to work.
T7	High	Sweet Chestnut <u>PRF1</u> - Woodpecker hole at 15m on NE facing limb in use by RNP - unlikely to be used for roosting.	Low	If tree works are planned during active season, re-check holes for bats prior to work.



T8	Moderate	<p>Sweet Chestnut</p> <p><u>PRF1</u> - Knothole on N side at 6m has inwards extension of 10 – 15 cm full of leaf litter</p> <p><u>PRF2</u> - Branch tear at 8m on S side of main leader which forms a large cavity 12 cm in diameter with an inwards extension of 30+ cm containing a grey squirrel dray.</p> <p>Branch tear on N side at 10 -12 m has callused over and does not form PRF</p> <p>Woodpecker holes on E side at 8m and S side at 10m have insufficient inwards extension to form PRF.</p>	Low	If tree works are planned during active season, re-check holes for bats prior to work.
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Site F

Surveyor: John Moorcroft			Licence number: 2016-26469-CLS-CLS	
Survey: Tree climbing inspection and PRF assessment			Site: F	
Tree	Potential	Notes	Category following aerial inspection	Recommendations
Avenue of lime trees	Mainly negligible or low. 1 tree with 1 PRF of moderate – high.	<p>Lime</p> <p><u>Climbing visit 1</u></p> <p>20 mature limes, with various pruning wounds. Most do not provide any PRF. Other pruning would have formed minor cavities but these only from PRFs of low potential.</p> <p>There is one PRF of moderate potential on the lime indicated on the attached plan (Tree T1). This is an old branch tear at approximately 6 m on the W side leading to a narrow cavity of approximately 5 cm in diameter which is smooth and dry on the inside.</p> <p><u>Climbing visit 2</u></p> <p>No change in features recorded. No bat evidence found.</p>	Mainly negligible or low. 1 tree with 1 PRF of moderate.	If Tree T1 felled during active season for bats, lower down limb containing PRF 1 and check for bat presence.

Site 1

Surveyor: John Moorcroft			Licence number: 2016-26469-CLS-CLS	
Survey: Tree climbing inspection and PRF assessment			Site: 1	
Tree	Potential	Notes	Category following aerial inspection	Recommendations
T2	High	<p>Sycamore</p> <p><u>PRF1</u> - Knot hole on E side that extends upwards 15 -20 cm, dry, dusty and rough inside - no evidence of roosting.</p> <p><u>PRF2</u> – Knot hole at 3m only extends inwards 5cm providing insufficient shelter, therefore use of this PRF is unlikely.</p> <p>No evidence of bats.</p>	Moderate	If felled during active season for bats, lower down limb containing PRF 1 and check for bat presence.



		<u>Climbing visit 2</u> No change in features recorded. No bat evidence found.		
T1	Low	Sycamore Ivy stems attached to trunk are of insufficient size to produce gaps between them that bats would use.	Negligible	None can be felled without any further surveys.

Site 5

Surveyor: John Moorcroft			Licence number: 2016-26469-CLS-CLS	
Survey: Tree climbing inspection and PRF assessment			Site: 5	
Tree	Potential	Notes	Category following aerial inspection	Recommendations
T1	Mod	Sycamore <u>PRF1</u> - Branch tear on E side at 4m – very little downwards or upwards extension (6cm).	Low	If felled during active season for bats, lower down limb containing PRF1 and check for bat presence.
T3	Mod	Horse Chestnut <u>PRF1</u> - 1 x knot hole on W side at end of limb. Inwards extension of 6 -7 cm dusty and rough sided - not likely to be used by bats. 2 x knot hole at 7m on E side have insufficient inwards extension to provide PRF.	Low	If felled during active season for bats, lower down limb containing PRF 1 and check for bat presence.

Metadata

Visit	Date	Weather
1	20/02/2019	Dry, cloud and sun, highest temp of 13°C, light - gentle breeze (2-3 Beaufort)
1	21/02/2019	Dry, cloud and sun, highest temp of 15°C, light - gentle breeze (2-3 Beaufort)
2	01/05/2019	Dry and sunny, highest temp of 20°C, light - gentle breeze (2-3 Beaufort)
3	28/05/2019	Mostly dry with short heavy down pour, highest temp of 16°C, gentel breeze (3 Beaufort)



Bat Box Specifications



Figure A5.1: Schwegler '1FF Bat Box' (image from <http://www.schwegler-natur.de/>)



Figure A5.2: Ibstock 'Enclosed Bat Box C' (image from www.nhbs.com)

- A3.6 The bat boxes to be installed on trees are to be installed as high as possible (at least 4m from the ground) and positioned with an unobstructed approach. No lighting should be directed towards them. Integrated bat boxes should also be installed at 3-4m above ground level.
- A3.7 As temperature is known to be an importance factor influencing the success of artificial roost boxes, the boxes are to be sited on the southern, south-eastern, and southwestern aspects of trees or buildings to receive the maximum amounts of sunlight and warmth (Mitchel-Jones 2004).

Survey Limitations

- A3.8 Bats use a variety of roosts, ranging from maternity, mating, or swarming and hibernation roosts, containing many individuals, to mating or night-feeding roosts containing few individuals or single animals. Bats also tend to be nomadic (although they are faithful to certain favoured roosting sites), spending variable lengths of time in a variety of roosts. Thus, even with considerable survey effort it is possible that small transient roosts of bats may have been missed, although these tend to be of less importance to bats and as such this should not affect the evaluation and recommendations made.
- A3.9 Bat surveys are subject to numerous variables. The echolocation calls of species such as brown long-eared bats *Plecotus auratus* are of low amplitude and may not always be picked up on bat detectors. Survey results represent a sample of bat activity during the surveys. It is possible that bats may use the development site at other times.
- A3.10 Bat calls cannot always be identified to species level, either due to distant contacts or the similarity between some types of bat calls. Where this occurs, it is recorded as an 'unidentified bat species' (Unid.), or will show which bat species it is considered likely to be (e.g. *Pipistrelle sp.* Or *Myotis sp.*).
- A3.11 One of the re-entry visits (10th May 2019) was undertaken during a period of light sporadic showers. Although these weather conditions are sub-optimal for bat surveys, given that poor weather was limited to this one survey visit and the showers were sporadic it is considered that this does not constitute a significant impact on the survey results.



Appendix 4: Great Crested Newt Survey Methodology and Results



Appendix 4: Great Crested Newt Survey Methodology and Results

Scope of GCN Survey

- A4.1 The distribution of ponds within 250m of the development site boundaries, including distance and orientation from the development site boundaries, are shown on plan **11932/P11**.

GCN Presence / Likely Absence Survey

- A4.2 Great crested newt (GCN) are a species known to be present in Surrey. Waterbodies are a key habitat in support of this species and GCN are able to move up to 250m between breeding ponds (English Nature, 2001). An assessment of local Ordnance Survey maps identified a number of waterbodies within this distance from the development sites. Given the presence of the wet ditch within Site 3, and several suitable ponds (Ponds P2-P6) being present within the masterplan site and within 250m of Sites 4, 5 and C, in the absence of appropriate survey results and any required mitigation (if GCN were found to be present), it is considered possible that GCN would be adversely impacted by the proposed development.
- A4.3 Following the scoping of waterbodies within 250m of the development sites using the Habitat Suitability Assessment (HSI; see the PEA and PBRA report for details; Report Ref: **11932/R01g**), Ditch D1 and Ponds P2 – P6 found to be suitable for GCN and therefore required further survey to determine presence/likely absence.
- A4.4 To determine if GCN are present, a full presence/likely absence survey of the aforementioned ponds was undertaken following best practice guidance (English Nature, 2001). This required four surveys of each water body undertaken by a pair of experienced ecologists (with at least one Natural England GCN Licence holder per pair) in March/April 2019.
- A4.5 The following methods were employed on each visit in order to detect the presence of GCN:
- Egg searching – All suitable submerged vegetation, where possible, was searched for GCN eggs. Newt eggs are characteristically wrapped in the submerged leaves of aquatic vegetation. This data can indicate the presence of breeding adults.;
 - Bottle trapping – Setting of bottle traps (where water body conditions allow). This involved the use of funnel traps (made from 2 litre clear plastic bottles, according to best practice guidance) that were secured in the water at 2m intervals around the pond margin in the evening before dark, and left overnight to be checked the following morning; and
 - Torch survey – The accessible margins of the water bodies were slowly walked once, searching the margins and water by torchlight (minimum one million candlepower) for GCN.
- A4.6 All amphibians observed were counted, and where possible identified to species, sex, and life stage.

Survey Limitations

- A4.7 Ditch **D1** was found to have a notable flow when Site 3 was accessed for surveys. This ditch was subject to four surveys, but it is considered that the flow observed decreases the suitability of the ditch for GCN.



Great crested newt Presence / Likely Absence Survey Results

Sandown Park Racecourse, Esher
Bat and Great Crested Newt Survey Report

11932_R05_31 May 2019_NJ_MM

A4.8 **Table A4.1** below presents the results of the survey visits undertaken between 14th March 2019 and 29th April 2019.

A4.9 No GCN, their larvae, or their eggs were recorded in any of the ponds/ditch.



Licence Holders																			
Nathan Jenkinson			2015-16404-CLS-CLS																
Christian Cairns			2018-36206-CLS-CLS																
Visit	Surveyors	Pond	Torching			Trapping			Other species			Egg search	Overnight temp		Water temp (°C)	Turbidity (1-5)	Water quality	Veg cover (%)	Accessibility (%)
			GCN	SN	PN	GCN	SN	PN	Frog	Toad	Tadpoles		Min	Max					
Visit 1 14.03.19	N.J. C.C.	P2	0	0	0	0	1	0	none	none	none	Y - none	7	8	10	4	moderate	40	40
		P3*	0	0	0	0	0	0	none	none	none	Y - none	7	8	10	2	moderate	80	45
		P4	0	1	0	0	7	0	none	none	none	Y - none	7	8	10	4	Poor	0	100
		P5	0	3	0	0	2	0	none	none	none	Y - none	7	8	10	0	poor	70	100
		P6	0	0	0	0	0	0	none	none	none	Y - none	7	8	10	5	poor	0	100
		D1	0	0	0	0	0	0	none	none	none	Y - none	7	8	10	2	moderate	20	50
Visit 2 28.03.19	C.C. R.B	P2	0	0	0	0	1	0	none	none	none	Y - none	4	7	6	3	moderate	40	35
		P3	0	0	0	0	1	0	none	none	none	Y - none	4	7	6	2	moderate	80	40
		P4	0	1	0	0	1	0	none	none	none	Y - none	4	7	6	5	poor	0	100
		P5	Pond dry																
		P6	0	0	0	0	1	0	none	none	none	Y - none	4	7	6	5	poor	0	100
		D1	0	0	0	0	0	0	none	none	none	Y - none	4	7	7	2	moderate	20	50
Visit 3 15.04.19	C.C. J.T.	P2	0	0	0	0	1	0	none	none	none	Y - none	7	8	8	3	moderate	60	25
		P3	0	0	0	0	2	0	none	none	none	Y - none	7	8	8	1	moderate	80	40
		P4	Pond dry																
		P5	Pond dry																
		P6	0	0	0	0	0	0	none	none	none	Y - none	7	8	8	5	poor	0	100
		D1	0	0	0	Water too shallow			none	none	none	Y - none	7	8	8		moderate	20	50
Vist 4 29.04.19	C.C. R.B.	P2	0	0	0	0	3	0	none	none	none	Y - none	7	8	12	0	moderate	80	25
		P3	0	1	0	0	2	0	none	none	none	Y - none	7	8	12	2	moderate	80	40
		P4	Pond dry																
		P5	Pond dry																
		P6	0	0	0	0	0	0	none	none	none	Y - none	7	8	12	4	poor	20	100
		D1	Scoped out too shallow																

Table A4.1: GCN presence/likely absence survey results; * = P3 was found to contain water during the first survey visit and was therefore subject to further survey, after being found to be dry during the initial HSI assessment



Appendix 5: Correspondence with Surrey Wildlife Trust



Appendix 5.1: Bat and GCN Survey Schedule Agreement



Sandown Park Racecourse, Esher
Bat and Great Crested Newt Survey Report

11932_R05_31 May 2019_NJ_MM

From: Heather Lewis
 To: Nathan Jenkinson
 Cc: Nathan Jenkinson
 Subject: SE: Sandown Park Ecology Survey Methodology
 Date: 25 April 2019 14:35:25
 Attachments: [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#), [Screenshot 2019-04-25 at 14.35.25](#)

Dear Aneta,

Apologies for the delay in response. I have read through the survey proposals as documented within the emails below from both you and Nathan Jenkinson of Tyler Grange. I can confirm that the proposed survey schedule appears in line with best practice species survey guidance and should provide an adequate baseline for establishing presence / absence of both Great Crested Newts and bats (Buildings and trees). I confirm that we have received the formal consultation from Elmbridge Borough Council with regards to outline application 2019/0551 at Sandown Park Racecourse and will provide our formal consultation comments in due course. I will contact you should I have any queries.

Regards,

Heather Lewis BSc (Hons), MSc
 Conservation Manager, Planning

Tel: 01483 795472

I work part time hours Monday to Friday 9am to 3pm.

From: Aneta Mantisio [mailto:AMantisio@elmbridge.gov.uk]
 Sent: 25 April 2019 13:42
 To: Heather Lewis <heather.lewis@surreyvet.org.uk>
 Subject: FW: Sandown Park - Ecology Survey Methodology

Dear Heather,

As discussed, please find the original email below. Thank you very much for looking into this for me so promptly.

Kind regards,

Aneta

Aneta Mantisio
 Special Projects Officer
 Planning Policy and Strategy | Planning Services
 Direct line: 01372 474814

Week	08/02/2019	15/02/2019	22/02/2019	01/03/2019	08/03/2019	15/03/2019	22/03/2019	29/03/2019	05/04/2019	12/04/2019	19/04/2019	26/04/2019	03/05/2019	10/05/2019	17/05/2019	24/05/2019	31/05/2019	07/06/2019	14/06/2019	21/06/2019	28/06/2019	05/07/2019	12/07/2019	19/07/2019	26/07/2019	02/08/2019	09/08/2019	16/08/2019	23/08/2019	30/08/2019			
1	B1																																
1	B2																																
2	B3																																
2	B4																																
3	B5																																
A	B6																																
A	B7																																
A	B8																																
A	B9																																
A	B10																																
C	B11																																
C	B12																																
F	B13																																

From: Nathan Jenkinson [mailto:nathan.jenkinson@tylergrange.co.uk]
 Sent: 12 February 2019 08:33
 To: Heather Lewis
 Cc: heather.lewis@surreyvet.org.uk
 Subject: RE: Society Confidential: Pre-Application Ecology Advice - Sandown Park

Hi Heather,

Further to your previous email, please find attached the final Preliminary Ecological Appraisal and Preliminary Bat Roost Assessment Report (PEA and PBRA) for the Sandown Park Racecourse site in Surrey, for your consideration.

Subject to your consultation comments, prior to the determination of this outline application we will be undertaking protected species surveys for Great Crested Newt and Bats (emergence/re-entry), to be submitted prior to determination of the planning application.

Based on the scheme design as appended in the attached PEA and PBRA report, I set out below our intended survey program. I would appreciate your comment on the below program at your earliest convenience, as although I am confident the below will provide the information required (on bat and great crested newt) to allow the application to be determined, I'd like to ensure you are happy that the below survey effort is sufficient to inform the outline application.

The surveys referenced above are set out below, in chronological order:

Bats: Trees and Outstanding PBRA in east of Site F

Site	Tree	Potential	Climb
1	T1	Low	Yes
	T2	Mod	Yes
	T3	Mod	Yes
S	T1	Mod	Yes
	T2	High	If time/possible (impacts unlikely)
	T3	Mod	If time/possible (impacts unlikely)
A	T1	Mod	If time/possible (impacts unlikely)
	T2	Mod	If time/possible (impacts unlikely)
Site F			PBRA all northern lime trees, climb if any found to have PBRA - PBRA of B1

Should any of the trees above with moderate or high potential that are likely to be impacted/lost under the scheme be unable to be scoped out, emergence/re-entry surveys will be programmed accordingly. For trees with low potential that are to be impacted/lost, if these cannot be scoped out they will be soft felled.

If building B1 is found to have potential to support roosting bats, additional surveys will be programmed accordingly.

Great Crested Newt Surveys

Visit No.	Date	
	PM	AM
1	14/03/2019	15/03/2019
2	28/03/2019	29/03/2019
3	15/04/2019	16/04/2019
4	29/04/2019	30/04/2019
5	06/05/2019	07/05/2019
6	23/05/2019	24/05/2019

Bats: Buildings - surveys at 2 week intervals where multiple surveys required

Site	Building	No. of Surveys
1	B1 (low)	1
	B2 (low)	1
2	B2 (low)	1
S	B3 (low)	1
	B4 (low)	1
A	B5 (mod)	2
	B3 (low)	1
	B1 (high)	1
	B5 (low)	1
	B10 (mod)	2
	B3 (low)	1
C	B4 (low)	1
	B5 (low)	1

I trust the above is clear. If you have any comments on the attached PEA/PBRA report or the survey schedule outlined above, please let me know at your earliest convenience.

Kind regards,

Nathan

 Nathan Jenkinson MSc BSc (Hons) ACSEM
 Senior Ecologist
 01753 363 922
nathan.jenkinson@tylergrange.co.uk
 South Bank Central Vivo Tower, 30 Stamford Street
 London, SE1 9FY

 tylergrange.co.uk
 Arboriculture, Ecology and Landscape Planning & Design

 Birmingham - Cotswolds - Exeter - London - Manchester

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From: Heather Lewis <heather.lewis@surreyvet.org.uk>

Sent: 23 November 2018 13:21
To: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Dear Nathan,

I have amended my pre-application advice letter to you taking account of the removal of original Site 2 from consideration and the renaming of Site 6 as Site 2. Revised version attached dated 23rd November 2018. I have clarified my advice for both bats and Great Crested Newts to state the requirement for completion of all necessary ecological surveys prior to determination. Apologies for any lack of clarity.

Regards,
Heather.

Heather Lewis BSc (Hons), MSc
Conservation Manager, Planning.

Tel: 01483 795472

I work part time hours Monday to Friday 9am to 3pm.

From: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Sent: 22 November 2018 16:01

To: Heather Lewis <heather.lewis@surreyvt.org.uk>
Cc: Wakako Hirose <wakako.hirose@rplains.com>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Hi Heather,

Thanks again for sending this over. I have some queries/amendments I would like to be factored into a revised version of the note please.

1. Bats: the penultimate paragraph states 'determination':

'It is therefore necessary that all recommended further bat emergence surveys are completed, evaluated and submitted to the Council for evaluation prior to determination of a planning application.'

But the recommendation states 'submission':

'All recommended further bat emergence surveys of buildings with bat roost potential within Sites 1, 3, 5, 6, A and B, should be completed prior to submission of any planning application'

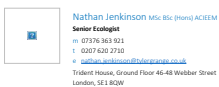
Given the tight timescales for these sites, it would be beneficial to be able to submit the required survey information post-submission (i.e. prior to determination). Can you please clarify which of the above paragraphs is correct and amend the advice note accordingly?

2. As per my email dated 14th November, Site 2 (that which contains ancient woodland) has now been removed entirely from proposals, and what was Site 6 in my initial tabulated email has now been re-labelled Site 2. As such, please can you remove all reference to the site 2 that contains ancient woodland from the advice note, as this is no longer applicable to the proposals. Following on from this, please can you change all references in the note previously referencing Site 6 to Site 2, for accuracy.

Thank you for your help on the above.

Best,

Nathan



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From: Heather Lewis <heather.lewis@surreyvt.org.uk>
Sent: 22 November 2018 11:56
To: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Dear Nathan,

FAO: Nathan Jenkinson
Proposal: Proposed redevelopment of Sandown park, comprising up to 11 parcels of land. Proposals to either submit as one combined or 11 separate outline planning applications.
Location: Land at Sandown Park Racecourse, Esher.

Thank you for inviting the Surrey Wildlife Trust to provide pre-application comments relating to proposed development at the above referenced location. Please find attached our formal response to your pre-application consultation request.

Please contact me should you wish to discuss further.

Regards,
Heather

Heather Lewis BSc (Hons), MSc
Conservation Manager, Planning.

Tel: 01483 795472

I work part time hours Monday to Friday 9am to 3pm.

From: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Sent: 20 November 2018 09:10

To: Heather Lewis <heather.lewis@surreyvt.org.uk>
Cc: Wakako Hirose <wakako.hirose@rplains.com>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Thanks Heather. As mentioned in my original email, please see the plan for site C attached, for your review.

Nathan

From: Heather Lewis <heather.lewis@surreyvt.org.uk>
Sent: 19 November 2018 14:29
To: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Hi Nathan,

Apologies for the delay in response. I am reviewing your documentation today and will aim to have a response for you tomorrow or Wednesday at the latest. I will call you tomorrow if I have any further questions.

Regards,
Heather.

Heather Lewis BSc (Hons), MSc
Conservation Manager, Planning.

Tel: 01483 795472

I work part time hours Monday to Friday 9am to 3pm.

From: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Sent: 19 November 2018 09:56

To: Heather Lewis <heather.lewis@surreyvt.org.uk>
Cc: Wakako Hirose <wakako.hirose@rplains.com>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Hi Heather,

Have you had a chance to review and comment on the below?

Thanks,

Nathan

From: Nathan Jenkinson
Sent: 14 November 2018 14:16
To: Heather Lewis <heather.lewis@surreyvt.org.uk>
Cc: Wakako Hirose <wakako.hirose@rplains.com>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Hi Heather,

Thanks for your email and the voicemail you left earlier. Please can we proceed.

Good news that your assessment can be done as a desk based exercise. I'm happy for the applications to be assessed as standalone. Please caveat your advice accordingly to make it clear how the applications being submitted as one single application may impact your opinion/recommendations.

Please also see attached the most up to date masterplan proposal document (this will be revised but gives a broad idea of the proposals for each site) **Please treat this as strictly confidential.**

Please be aware that Site 2 has now been excluded from the applications and so will not require further consideration as part of this consultation. For the purposes of this consultation please continue to refer to Site 6 as Site 6 (as I have done in the documents submitted to you previously), however be advised that going forward Site 6 will become Site 2 (in place of the now excluded Site 2).

Lastly, please can I ask that your opinion on outline mitigation strategies and the conditioning of surveys is sought for all sites, as this would be the preferred method with regard to how we proceed, to allow earlier determination. The applications coming forward certainly offer the opportunity for us to enhance the Sandown Park site as a whole for biodiversity.

Thanks for your time and look forward to hearing from you tomorrow/Friday.

Best,

Nathan

From: Heather Lewis <heather.lewis@surreyvt.org.uk>
Sent: 14 November 2018 10:04
To: Nathan Jenkinson <nathan.jenkinson@ylnearange.co.uk>
Subject: RE: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Dear Nathan,

I have just left you a voicemail to confirm receipt of your email dated 9th November 2018 and the 10 attached files.

Given that you have submitted habitat plans and summary for each development, I feel it is unlikely that a site visit would be necessary at this stage.

I therefore conclude that I would be looking at around 1 day's work to read and review the documentation and identify any additional ecological constraints or requirements for further documentation / survey working on that assumption that the application will be 11 separate outline planning applications.

It would be helpful to have a clearer understanding of the proposed development at each location as you have previously indicated that some parcels of land are for redesign of the racecourse and some for residential dwellings.

As discussed we would price this work at £85 excl. VAT and I would be able to look at this this week as soon as I have confirmation from you that you are happy to proceed on this basis and hopefully with some additional detail on the proposals at each location.

Thanks and regards,
Heather

Heather Lewis BSc (Hons), MSc
Conservation Manager, Planning.

Tel. 01483 795472

I work part time hours Monday to Friday 9am to 3pm.

From: Nathan Jenkinson [mailto:nathan.jenkinson@ycregauge.co.uk]

Sent: 09 November 2018 16:16

To: Heather Lewis [mailto:Heather.Lewis@ycregauge.co.uk]

Cc: Waike Hines [mailto:waike.hines@ycregauge.co.uk]; Aaron Granger [mailto:aaron.granger@ycregauge.co.uk]; Jamie Pratt [mailto:jamie.pratt@ycregauge.co.uk]

Subject: Strictly Confidential: Pre-Application Ecology Advice - Sandown Park

Importance: High

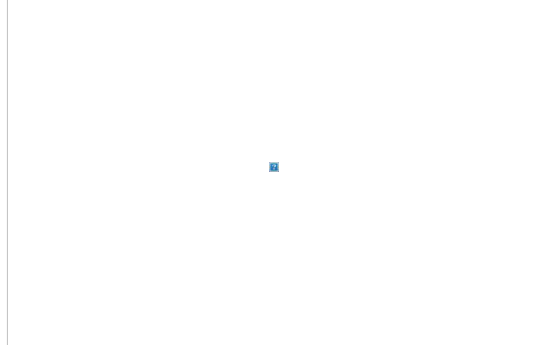
Dear Heather,

Strictly Confidential – Sandown Park, Ecology Preapplication Advice

Further to our phone conversation earlier this week, my client (Rakeleys) would like to engage in the pre-application ecological advice service in relation the Sandown Racecourse site in Esher, located within the Borough of Elmbridge. For your information, the planning officers handling the case are Kelly Jethwa and Edward Chetwynd-Stafford.

The proposals are currently split across 11 individual sites within the ownership of Sandown racecourse. At this stage it is TBC whether each of the 11 sites will be submitted as a 11 individual outline applications or one outline application encompassing all 11 sites. Please see the current iteration of the masterplan below, for context (footpath application not shown; please see Habitat Features Plans at the wetranfer link below):

pid:image001.jpg@01D47C24.298F5960



At this stage, I would like outline the key ecological constraints identified at each site (or lack of), and scope with you the further survey work I will be recommending, but more prudently (given the tight timescales on the project) the potential to provide outline mitigation strategies for each of the sites, to potentially allow the conditioning of further survey works following determination of the outline application(s).

Please see below for a tabulated overview of the key ecological constraints at each site. It is worth noting at this stage that proposals are still evolving and so some impacts (namely the loss of habitats and buildings) are not set in stone, but the broad principles of each development parcel are already clear and so should allow us to make informed decisions with the information currently available. I also attach the 11 corresponding phase 1 habitat plans for each of the sites. Please note these are preliminary drafts and so some are not completely accurate (amended versions will be available mid-week next week; where the plans will differ significantly from those attached once amended, I have highlighted this in red below).

All 10 available draft Habitat Features Plans can be viewed and downloaded from this link: <https://we.01b.Packet.Buy>

Where the plans are not accurate due to very recent scheme changes, I have highlighted this in the notes for your information. Where further surveys/precautionary mitigation are required, I have highlighted the respective cell in yellow.

Please note, none of the sites contain or site directly adjacent to waterbodies or watercourses considered suitable for otter, water vole or white-clawed crayfish, as such these species are not considered likely to be present.

Please also note, bat activity surveys are not considered necessary as minimal amounts of suitable habitat will be lost as a result of the proposed schemes, with the racecourse as a whole remaining largely unchanged. This is subject to precautionary mitigation measures being implemented within the scheme design, namely sensitive lighting and the inclusion of planting of benefit for foraging and commuting bats where appropriate, to represent an enhancement.

Lastly, please note that breeding and wintering bird surveys are not considered necessary as minimal amounts of suitable habitat will be lost as a result of the proposed schemes, with the racecourse as a whole remaining largely unchanged.

Site	Bats (note: where further surveys for bats in trees are recommended, these could be climbed/tree endoscope inspections which could be done sooner than standard emergence/entry surveys, where the trees are climbable)	Birds	Badger	GCN	Hazel Dormouse	Hedgehog	Reptiles
1 - actively used stables with handstanding access roads and amenity grassland	Buildings B1 and B2 have 'low' bat roost potential, requiring one further survey of each building as they are to be demolished	Nesting birds may be present in buildings/vegetation around periphery of the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. No suitable habitat at the site, considered likely absent	No suitable habitats within the site boundary, nearest pond c. 650m north-east. Considered likely absent	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat within the site boundary, considered likely absent
2 - actively used dry ski slope and associated amenities, within an area of Ancient Woodland. Development to fall within area of existing woodland only, with no loss of woodland habitat	All building with no roost potential. 14 trees within/adjacent to the site with low-high roost potential. Of these, proposals indicate only Tree T5 (moderate) potentially to be lost and so requiring further survey. Sensitive lighting within scheme key here	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Suitable habitat around site edge. Badger walkover survey to be undertaken to determine if badger setts present	Suitable terrestrial habitats around site edge. Nearest pond c. 550m north-east. Considered likely absent	Habitats surrounding the site are sub-optimal (poor understorey) but is relatively small area of woodland and is highly fragmented from suitable habitats in the wider landscape. Therefore considered likely to be absent.	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat within the site boundary, considered likely absent
3 - Area of residential housing with small allotment area and scrub in the east. Additional area of amenity grassland and trees in the north. Boundary change, therefore to be assessed in coming weeks	Building B3 with 'low' potential, requires one survey, all others with negligible potential. Tree T1 has 'low' potential. May be more trees with bat potential in area to north, yet to be assessed	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	Suitable terrestrial habitats in the north of the site. West ditch aspects the site, should be subject to presence/likely absence or catch. No means of connected ponds present within 250m which is considered to reduce suitability	Some suitable scrub habitats within the site, but it is fragmented from suitable habitats in the wider landscape, therefore considered likely to be absent.	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	Allotment and scrub habitats offer suitable habitat matrix and will be lost. Presence/likely absence survey required
4 - Small mown field with young tree stock around the boundaries	No buildings or trees with bat potential	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	No ponds on site and roads to east and south mean connectivity is limited to the racecourse to the north and west. 150m from nearest pond (H3) result not yet available but likely suitable. Terrestrial habitat is suitable; surveys of off-site ponds to north-west to be undertaken to determine presence/absence	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	Limited suitable habitat present, precautionary vegetation clearance directly to the north considered suitable
5 - Bare ground in the west, treeline in the north and in use nursery facilities in the east	B3 and T3 have moderate potential and may be lost, therefore requiring two further surveys. Buildings B3 and B4 have low potential and so require one further survey	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	No ponds within the site. Suitable terrestrial habitat and nearest pond is c. 60m to the north. Surveys of off-site ponds to north to be undertaken to determine presence/absence	Some limited suitable scrub habitats within the site, but it is fragmented from suitable habitats in the wider landscape, therefore considered likely to be absent.	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	Very little suitable habitat within the site boundary, considered likely absent
6 - Handstanding carpark with treeline bordering to the south, stables bordering to the west and a currently used horse building within the site boundary	B2 has moderate potential and B3 has low potential, so requiring two and one further survey respectively. T1 has moderate bat potential and so will require two further surveys if it is to be lost	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	Little terrestrial habitats around site edge. No ponds within 500m. Considered likely absent	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat at the site, considered likely absent
A - Site boundary significantly extended since baseline ecology works undertaken; additional area required to be assessed includes trees and buildings. All findings subject to further survey works	Building B1 = moderate (2) B3 = low (1) B4 = high (3) B5 = low (1) Further surveys required shown in brackets above, if these buildings to be impacted/changed/demolished during works	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	Little terrestrial habitats around site edge. No ponds within 500m. Considered likely absent	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat at the site, considered likely absent
B - Handstanding and grandstand building with amenity grassland and bare ground	Building B4 (grandstand) has isolated low potential due to one feature, likely requires one further survey	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	No suitable terrestrial habitats. Nearest pond over 250m away. Considered likely absent	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat at the site, considered likely absent
C - No habitats available; no trees, no scrub	Buildings with no BRP. No trees with BRP	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur	No setts observed. Little suitable habitat at the site, considered likely absent	Suitable habitat isolated to scrub in east, tyres may be suitable refuge. Network of ponds adjacent to east. Surveys	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow	No suitable habitat at the site, considered likely absent

		in the nesting bird season (March-August) inclusive		of off site ponds to east to be undertaken to determine presence/absence		continued free movement for foraging/dispersal	
D - Red line boundary extended to include additional habitats, considered unlikely to change findings given uniformity of habitats	Buildings with no BRP. No trees with BRP	Nesting birds may be present in buildings within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	Very little suitable habitat. Nearest ponds >250m. Considered likely absent	No suitable habitat at the site, considered likely absent	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat at the site, considered likely absent
Footpath - Red line amended such that eastern half is to be retained, western half is no longer being considered as the footpath will link to the existing pavement along the southern racecourse boundary	Trees T1, T2 and T3 with moderate potential. Will require further surveys	Nesting birds may be present in buildings/vegetation within the site. Precautionary ECOW checks if removal/demolition to occur in the nesting bird season (March-August) inclusive	No setts observed. Little suitable habitat at the site, considered likely absent	Suitable habitat particularly in the east. Network of ponds adjacent to north and west. Surveys of off site ponds to east to be undertaken to determine presence/absence	Some suitable scrub habitats within the site, but it is fragmented from suitable habitats in the wider landscape, therefore considered likely to be absent.	Potentially present across Sandown site; sensitive design principles to create habitat and allow continued free movement for foraging/dispersal	No suitable habitat at the site, considered likely absent

I trust the above is clear. If you have any queries, please give me a call.

If possible, please can we have a response on the above by Wednesday next week as the deadline for the associated report(s) are tight.

All the best,

Nathan



Nathan Jenkinson MSc BSc (Hons) ACFEM
Senior Ecologist
m 01976 363 501
t 0007 600 2716
e nathan.jenkinson@slrpage.co.uk
Tribute House, Ground Floor 46-48 Webber Street
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Appendix 5.2: Bat tree Survey Method Agreement



Sandown Park Racecourse, Esher
Bat and Great Crested Newt Survey Report

11932_R05_31 May 2019_NJ_MM

From: Heather Lewis
To: Nathan.Jenkinson
Subject: Re: Sandown Park Racecourse: Bat Survey Methodology
Date: 11 March 2019 10:18:53
Attachments: [image001.png](#)
[image002.png](#)
[image003.png](#)
[image006.jpg](#)
[image007.jpg](#)

Dear Nathan,

Apologies for the delay in response.

I can confirm that the proposed surveys details, including final survey immediately prior to works / felling, are appropriate to facilitate works for this proposed development.

Regards,

Heather Lewis BSc (Hons), MSc
Conservation Manager, Planning.

Tel; 01483 795472

I work part time hours Monday to Friday 9am to 3pm.

From: Nathan Jenkinson <nathan.jenkinson@tylerrange.co.uk>
Sent: 28 February 2019 12:16
To: Heather Lewis <Heather.Lewis@surreywt.org.uk>
Subject: Sandown Park Racecourse: Bat Survey Methodology

Hi Heather,

Further to our telephone conversation earlier today, can you please confirm that you are happy for bat surveys of trees at the Sandown Park Racecourse site to proceed as a series tree climbing visits only, with no emergence/re-entry surveys to be undertaken?

As discussed, we have undertaken our first tree climbing visit this month (to constitute the first survey visit), and for any trees now deemed to have moderate or high potential for roosting bats (Collins, 2016) that may be impacted by the proposals, we intend to undertake an early season visit (early May) for both moderate and high potential trees, to constitute a second survey visit. For high potential trees that require a third survey visit, we will undertake another site visit in late May.

If you can respond to this email with your agreement, as per our telephone conversation, that would greatly appreciated.

As discussed, I will inform the client that a further inspection of any tree that is deemed to have moderate or high bat potential should be undertaken immediately prior to felling.

Best,

Nathan



Nathan Jenkinson MSc BSc (Hons) ACIEEM
Senior Ecologist

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t 020 3934 9470
e nathan.jenkinson@tylerrange.co.uk

South Bank Central Vivo Tower, 30 Stamford Street
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Plans

Site 1: Habitat Features Plan **11932/P01a**

Site 2: Habitat Features Plan **11932/P02a**

Site 3: Habitat Features Plan **11932/P03a**

Site 5: Habitat Features Plan **11932/P05a**

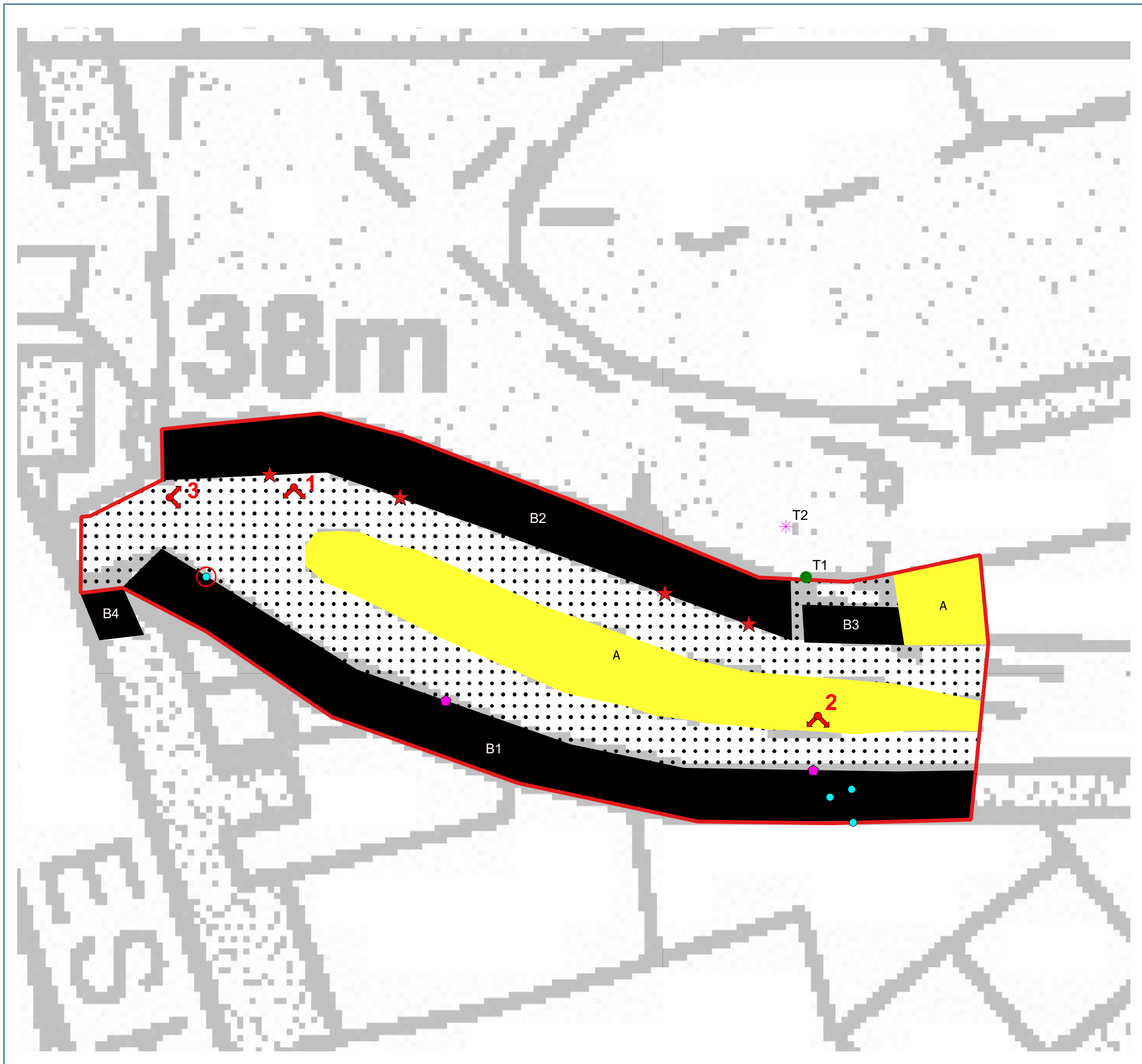
Site A: Habitat Features Plan **11932/P06a**

Site C: Habitat Features Plan **11932/P08a**

Site F: Habitat Features Plan **11932/P16a**

Pond Location Plan **11932/P11**





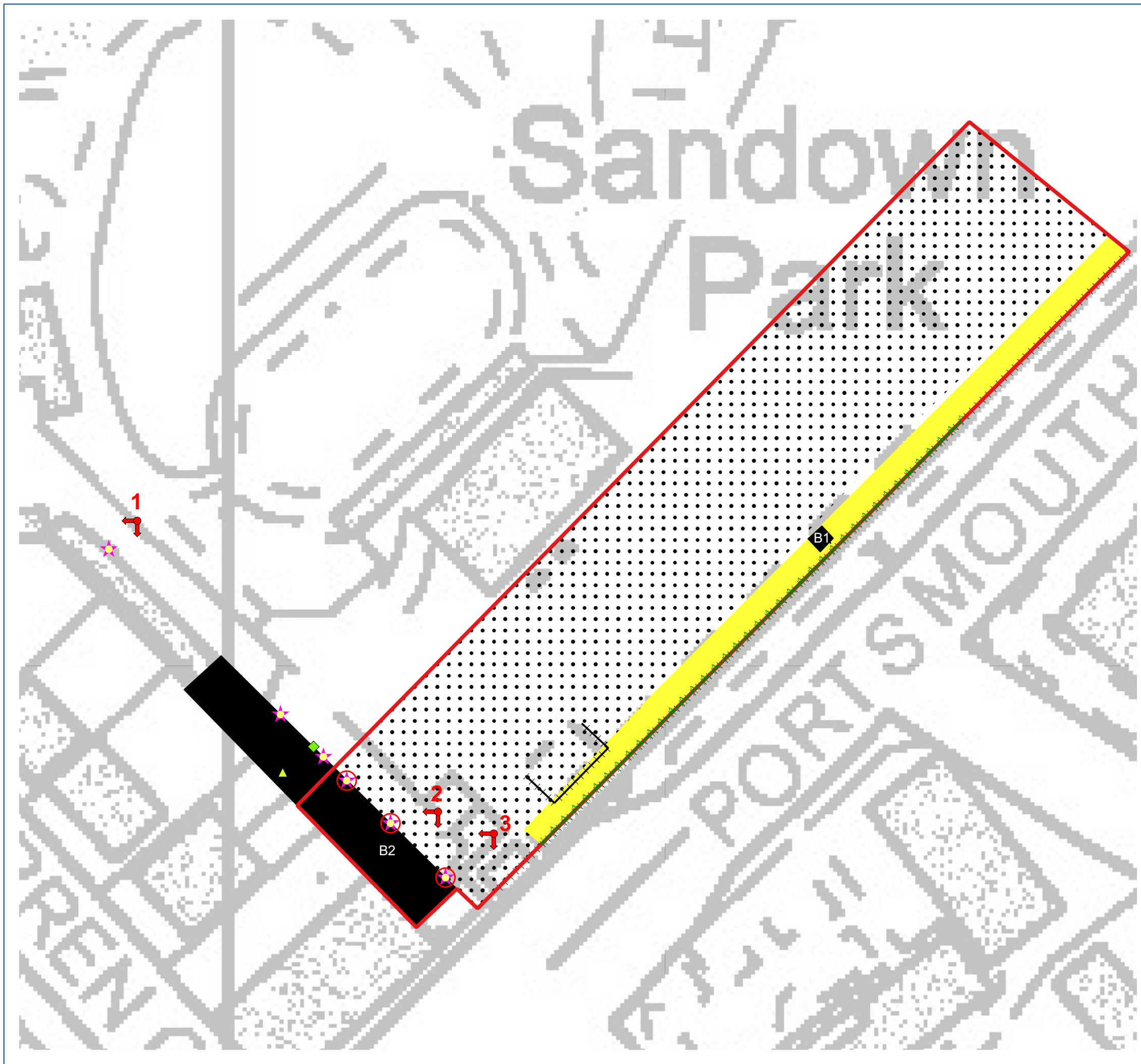
- Site boundary
- Amenity grassland
- Building
- Hardstanding
- Scattered broadleaved tree
- Tree with moderate bat potential
- Hole in mesh
- Mortar gap
- Soffit Gap
- Surveyor Location
- Endoscoped feature



Project	Sandown Park - Site 1
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	11932/P01a
Date	May 2019
Checked	NJ



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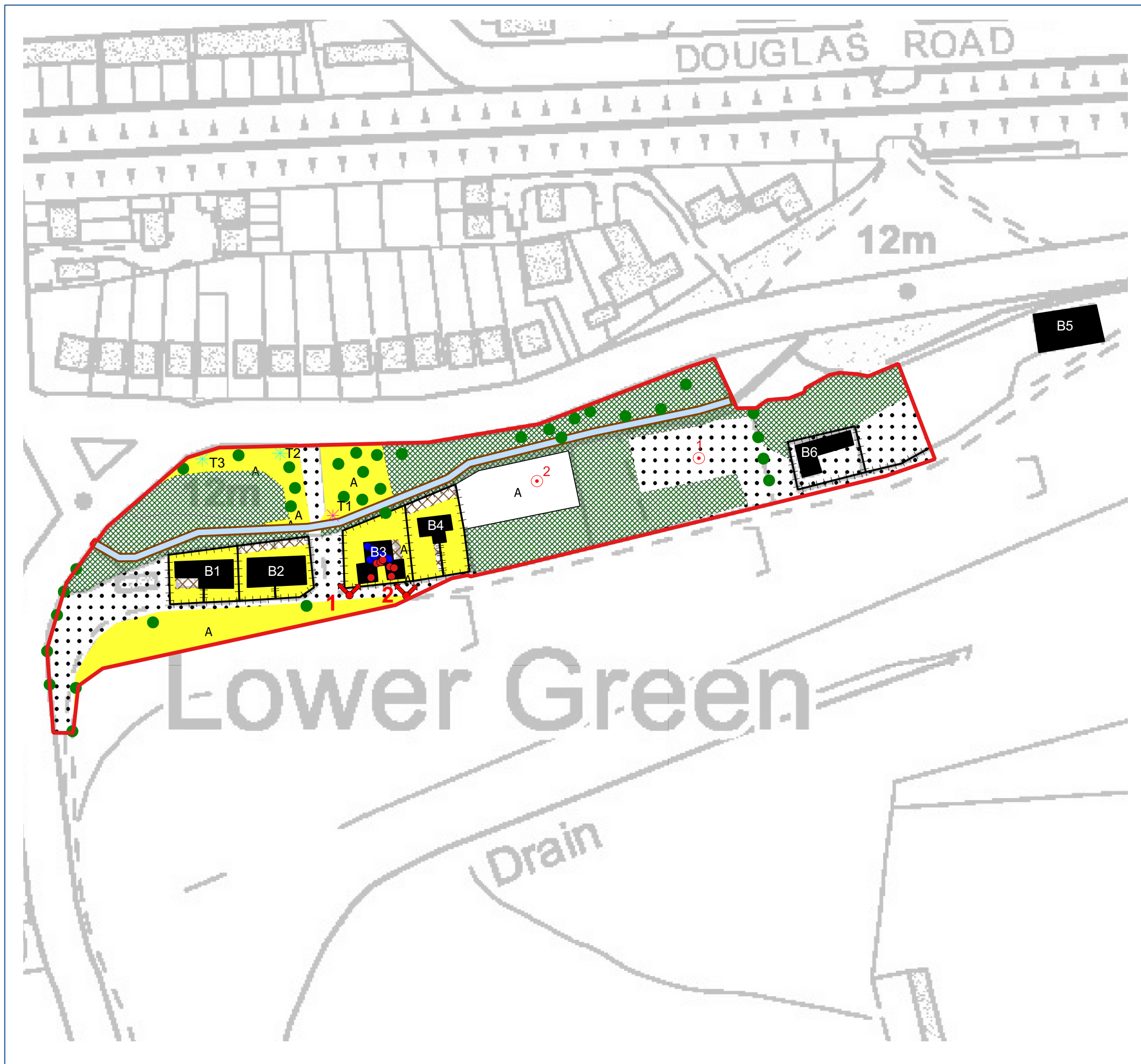
- Site boundary
- Amenity grassland
- Buildings
- Hardstanding
- Fence
- Treeline
- Facia gap
- Gable apex gap
- Gable end gap
- Surveyor Location
- Endoscoped feature



Project	Sandown Park - Site 2
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	11932/P02e
Date	May 2019
Checked	NJ



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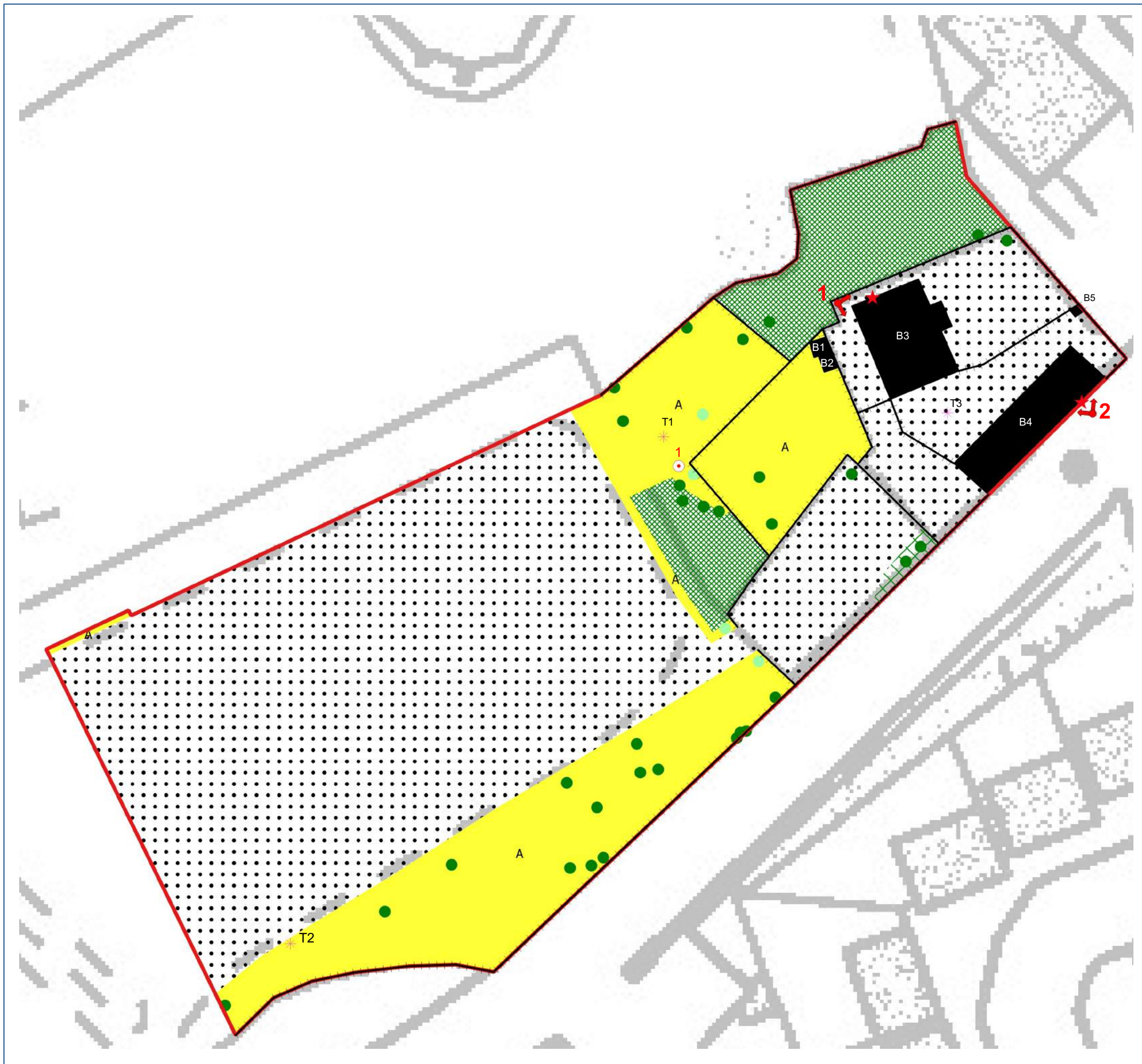


- Line boundary
- ⊙ Target note
- Amenity grassland
- Allotment
- Building
- Dense scrub
- Fence
- Introduced scrub
- Hardstanding
- Scattered broadleaved trees
- Wet ditch
- ✱ Tree with low bat potential
- ✱ Tree with moderate bat potential
- Tile gap
- Ridge tile gap
- V Surveyor location

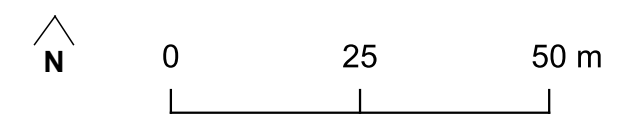


Project	Sandown Park - Site 3
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	11932/P03e
Date	May 2019
Checked	NJ

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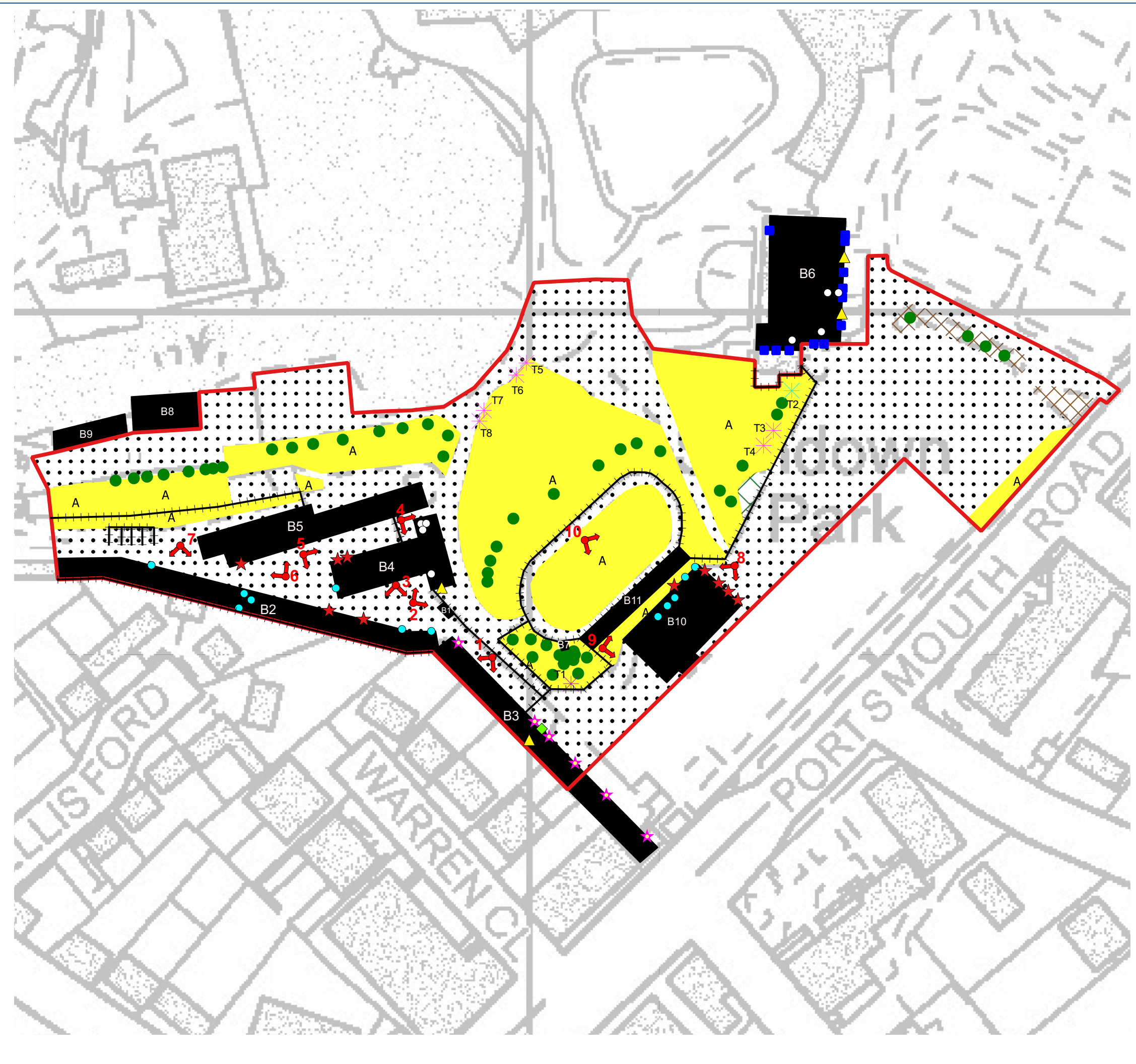


- Site boundary
- Target notes
- Amenity grassland
- Buildings
- Dense scrub
- Fence
- Hardstanding
- Scattered scrub
- Scattered broad-leaved trees
- Scattered coniferous trees
- * Tree with low bat potential
- ★ Soffit Gap
- ↖ Surveyor location



Project Sandown Park - Site 5
 Drawing Title **Habitat Features Plan**
 Scale As Shown (Approximate)
 Drawing No. 11932/P05a
 Date May 2019
 Checked NJ

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- Site boundary
- Amenity grassland
- Building
- Hardstanding
- Fence
- Introduced scrub
- Scattered broadleaved trees
- Scattered scrub
- ✱ Tree with low bat potential
- ✱ Tree with moderate bat potential
- ✱ Tree with high bat potential
- Raised tile
- ★ Soffit Gap
- Hanging tiles
- ▲ Gable apex gap
- ◆ Gable end gap
- ✱ Facia gaps
- Mortar gap
- ➔ Surveyor location
















Project Sandown Park - Site A
 Drawing Title **Habitat Features Plan**
 Scale As Shown (Approximate)
 Drawing No. 11932/P06a
 Date May 2019
 Checked NJ

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Sandown Park

Racecourse

Racecourse

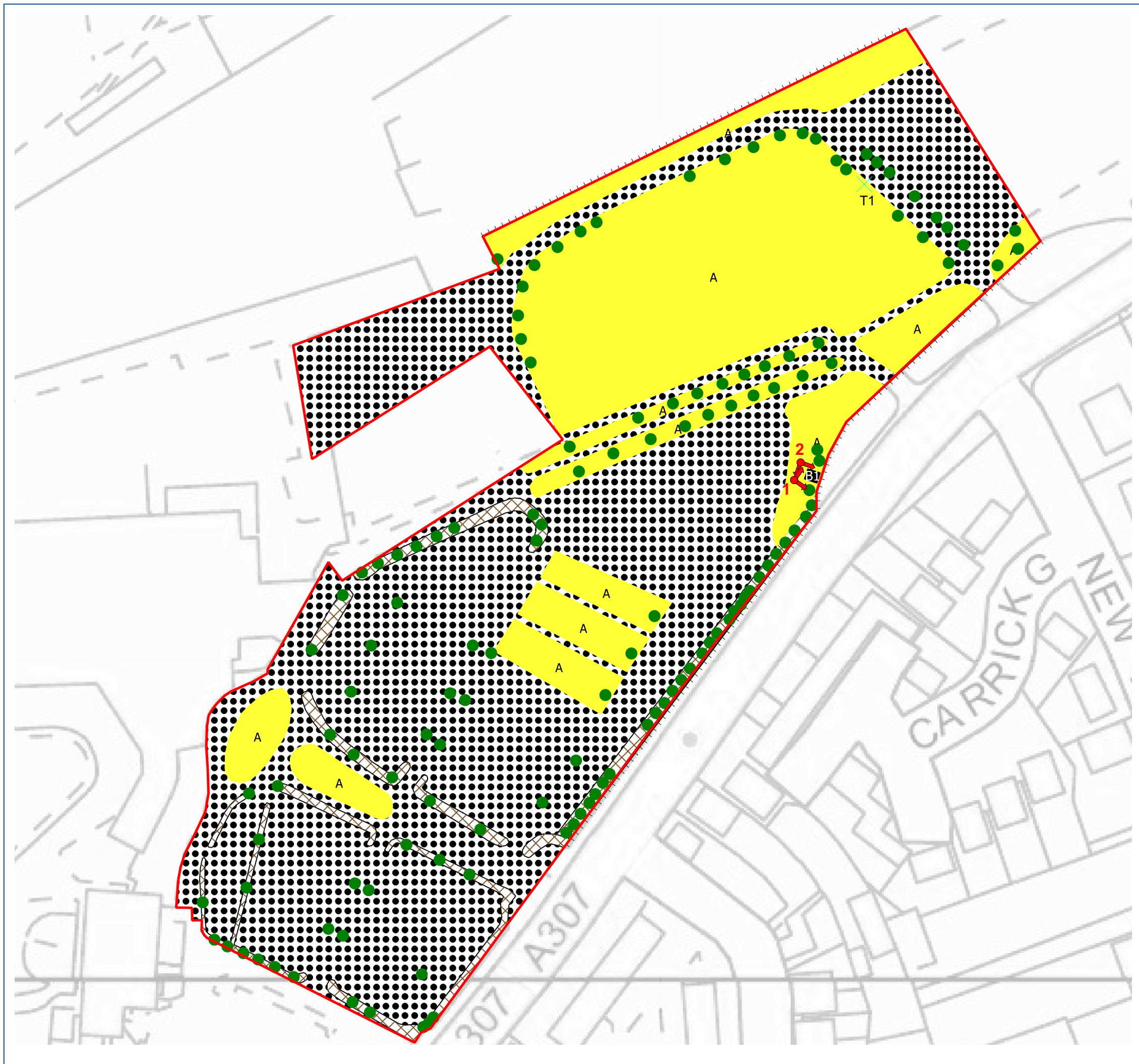
-  Site boundary
-  Amenity grassland
-  Buildings
-  Dense scrub
-  Fence
-  Hardstanding
-  Introduced scrub
-  Scattered broadleaved trees
-  Asbestos roof gap
-  Gable apex gap
-  Mortar gap
-  Tile gap
-  Surveyor location



Project Sandown Park - Site C
 Drawing Title **Habitat Feature Plan**
 Scale As Shown (Approximate)
 Drawing No. 11932/P08a
 Date May 2019
 Checked NJ



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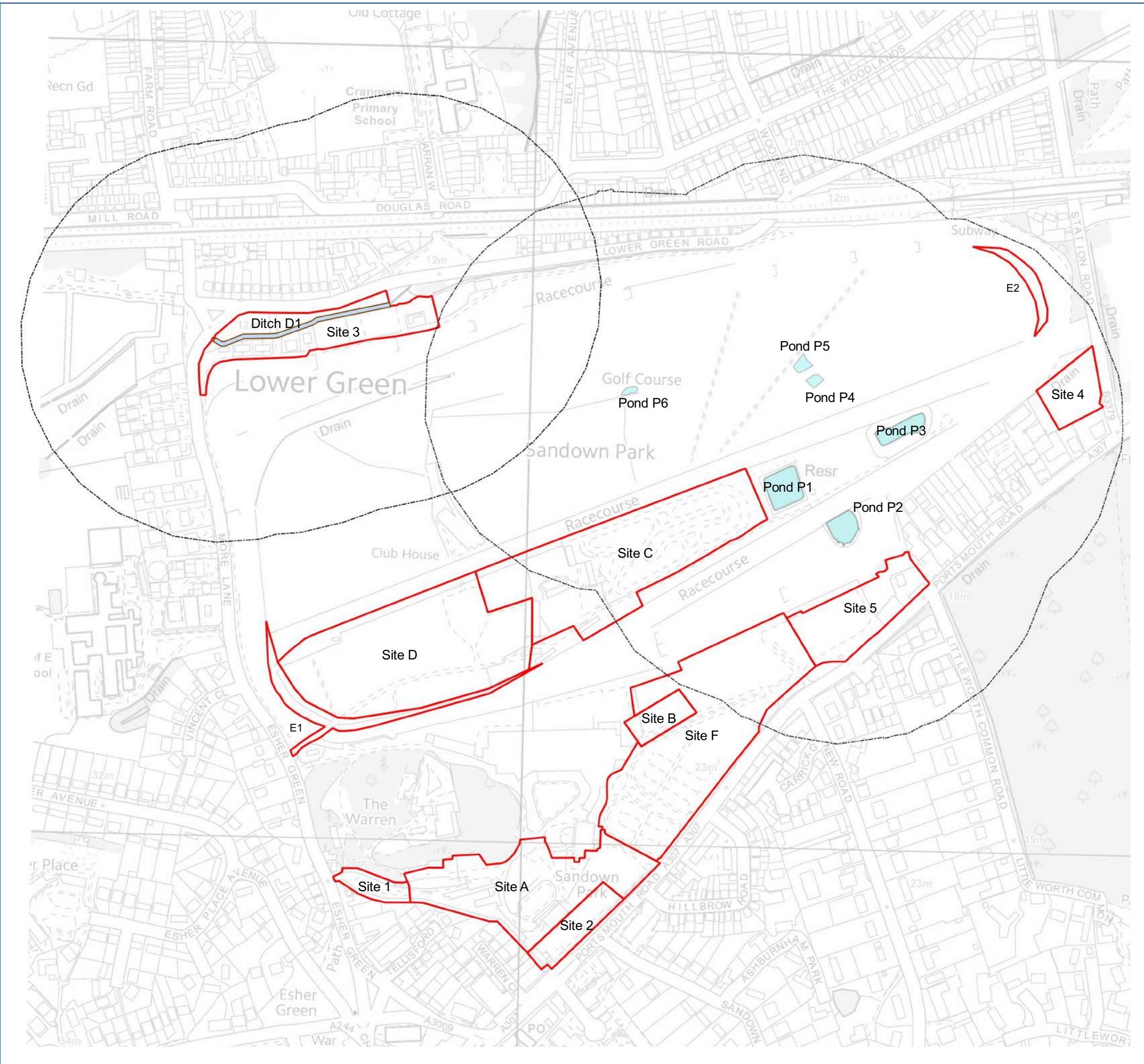
- Site boundary
- A Amenity grassland
- Building
- Introduced shrub
- Hardstanding
- Hedgerow
- Fence
- Scattered broadleaved trees
- X Tree with moderate bat potential
- ① Surveyor location



Project	Sandown Park - Site F
Drawing Title	Habitat Features Plan
Scale	As Shown (Approximate)
Drawing No.	11932/P16a
Date	May 2019
Checked	NJ



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- Site boundary
- 250m buffer
- Ditch
- Ponds



Project	Sandown Park
Drawing Title	Pond Location Plan
Scale	As Shown (Approximate)
Drawing No.	11932/P11
Date	April 2019
Checked	NJ



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