



Construction Environmental Management Plan

Oak Park, Havant
for:

Ashely House plc.

CRM.1112.009.EC.R.005



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Construction Environmental Management Plan

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1 Introduction

1.1 Commission

- 1.1.1 In May 2016 Enzygo Ltd was commissioned by Ashley House plc. to produce a Construction Environmental Management Plan (CEMP) for land off Oak Park, Havant, Hampshire, PO9 2EL (central grid reference: SU 7201 0714), located within Hampshire County Council (HCC) (Havant Borough) planning authority.
- 1.1.2 The proposed works have been granted planning permission (APP/15/00303) and will involve the erection of Havant Health and Well-Being Campus, comprising an 80-bed nursing home, 51 affordable extra care flats, 48 affordable and market supported living flats, community hub facilities, landscaped amenity gardens, car parking, with vehicular access from River Way and Leigh Road and pedestrian access from Lavant Drive and Crossland Drive with associated infrastructure. Refer to Appendix A for proposed site layout.

1.2 Aims and Objectives

- 1.2.1 This report seeks to satisfy Condition 21 of Planning Application APP/15/00303, granted in December 2016 which stipulates that:

"No above ground construction works shall take place until details of ecological enhancements such as the provision of bat and bird boxes/integrated roost units and an ecological enhancement of the stream corridor to the eastern side to of the site have been submitted to and approved in writing by the Local Planning Authority. The approved details shall be implemented prior to occupation and thereafter maintained in accordance with the approved scheme."

Reason: In the interest of nature conservation and to mitigation the impacts of the development having due regard to planning policies CS11 and DM8 of the Havant Borough Local Plan (Core Strategy) 2011 and the National Planning Policy Framework 2012."

- 1.2.2 This report also considers Condition 17 and point 5 of Other Important Information within the Decision Notice for application APP/15/00303.
- 1.2.3 The aim of the CEMP is to provide documentation in accordance with BS42020:2013: Biodiversity – Code of Practice for Planning and Development (BSI, 2013), and to provide clear information for contractors to follow when undertaking construction works on site, whilst providing details of ecological enhancements which are to be incorporated. The CEMP includes:
- Risk assessment of potentially damaging construction-type activities;
 - Identification of 'biodiversity protection zones' and areas where invasive species have been identified;
 - Inclusion of or reference to details for implementation of method statements required to achieve specific biodiversity outcomes, and particularly mitigation/enhancement measures;
 - Practical measures (both physical measures and sensitive working practices) to avoid or mitigate impacts during construction, and those to enhance the site;
 - The location and timing of sensitive works to avoid harm to biodiversity features;
 - The times during construction when specialist ecologists need to be present on site to oversee works;

- Responsible persons and lines of communication;
- The role and responsibilities on site of an Ecological Clerk of Works (ECoW) or similarly competent person responsible for managing biodiversity issues on site; and
- Use of protective fences, exclusion barriers and warning signs.

1.2.4 This report remains valid for 2 years from the date of publication, or until conditions across the site should substantially alter.

1.3 Background

1.3.1 The following ecological reports have been referred to:

- Phase 1 Habitat and Protected Species Scoping survey (RPS, 2012a);
- Tree Survey (RPS, 2012b);
- Preliminary Ecological Appraisal (Enzygo, 2014);
- Reptile Presence/Absence Survey (Enzygo, 2015);
- County Ecologist Response (HCC, 2016);
- Reptile Mitigation Plan (Enzygo, 2016a);
- Precautionary Working Method Statement for Archaeological works (Enzygo, 2016b);
- Reptile Translocation Report (Enzygo, 2016c); and
- River Corridor Survey (Enzygo, 2016d).

1.4 Site Context

1.4.1 The approximately 2ha site comprises a matrix of coarse grassland, scrub, and ephemeral/short perennial habitat with remaining areas of hardstanding and building rubble from demolished buildings. The town of Havant extends on all aspects.

Figure 1.1: Surveyed Area



Image courtesy of Google Earth Pro 7.1.5.1557, 50°51'32.71"N 0°58'41.48"W Elev.79m. Imagery date 22/04/2015. Image sourced 25/10/2016.

1.5 Nomenclature

- 1.5.1 The English names of flora and fauna species are given in the main text of this report. Scientific names are used alongside the English name where this first occurs. Vascular plants and Charophytes follow the nomenclature of The Botanical Society for the British Isles database (BSBI, 2007) with all other flora and fauna following the National Biodiversity Network (NBN) Gateway (NBN, 2014).

2 Ecological Features

2.1.1 The following ecological features have been identified on site. This information is taken from each corresponding historical ecological report as detailed within section 1.3. Refer to Drawing CRM.1112.009.EC.R.005 for location and extent, where applicable:

- **Chichester & Langstone Harbours Ramsar**- Located off site ~1.8km downstream. International value;
- **Chichester & Langstone Harbours Special Protection Area (SPA)**- Located off site ~1.8km downstream. International value;
- **Chichester Harbour Site of Special Scientific Interest (SSSI)**- Located off site ~1.8km downstream. National value;
- **Solent Maritime Special Area of Conservation (SAC)**- Located off site ~1.8km downstream. International value;
- **Warblington Meadow SSSI**- Located off site ~1.9km downstream. National value;
- **River/Stream Habitat of Principal Importance (HPI) and Local Biodiversity Action Plan (BAP) Priority Habitat**- Includes Lavant Stream Located along eastern boundary, 'pipe link' immediately off-site to the north, and Hermitage Stream catchment off-site further to the south and west. National value;
- **Hedgerow HPI/Local BAP**- Native species rich/poor present around the site boundary. National value;
- **Trees** – Mature and TPO present around the site boundary. County value;
- **Bats (Roosting)**- Potential roosting opportunities in mature trees located on site boundary. Value dependent upon presence/absence of bat roosts;
- **Reptiles** – 'Good' population of Slow-worm (*Anguis fragilis*) on site. Local value; and
- **Birds**- General nesting opportunities across the site for a restricted range of common bird species. Within zone of influence value only.

2.1.2 The following have not been identified as ecological features requiring avoidance/mitigation measures during construction activities as; surveys have indicated that habitats are not suitable and/or not of significant extent; surveyed species are likely absent; and/or no impacts have been identified: Bats (Activity), Otter (*Lutra lutra*), Water Vole (*Arvicola amphibius*), White-clawed Crayfish (*Austropotamobius pallipes*), Semi-Improved Neutral Grassland HPI/Local BAP and Open Mosaic Habitat on Previously Developed Lane HPI/Local BAP.

3 Biodiversity Objectives

3.1.1 Biodiversity objectives are detailed within Table 3.1. These have been determined through consideration of the following, with information collated from historical ecological reports as detailed within section 1.3:

- Ecological Features identified on site and within the zone of influence;
- Historical records of protected species/habitats present within the locality;
- National planning policy, including UK Biodiversity Action Plan (BAP) Species of Principal Importance (SPI) and Habitats of Principal Importance (HPI);
- Local planning policy, including Local BAP species and habitats (Havant Biodiversity Action Plan, 2011);
- Havant Borough Core Strategy (Havant Borough Council, 2011), including consideration of Green/Blue Infrastructure Resource;
- Consultation with third parties/stakeholders including County Ecologist; and
- Other influencing factors such as, Geology, Hydrology, intended operational activities, and existing disturbance activities within the locality (i.e. channelized stream and urban location).

Table 3.1: Biodiversity Objectives

Ecological Feature	Target
Chichester & Langstone Harbours Ramsar, SPA, SSSI, Solent Maritime SAC, and Warblington Meadow SSSI	No degradation of habitats.
River/Stream HPI/Local BAP Priority Habitat (Lavant Stream, 'pipe link', and Hermitage Stream catchment)	No degradation of habitat, and increase of condition to favourable. Maintenance/increase of blue infrastructure and associated aquatic habitats.
Hedges HPI/Local BAP and Trees	No net loss of habitat. Maintenance/increase of green infrastructure.
Bats	No net loss/increase in available roosting opportunities. Increased foraging and commuting opportunities for common bat species.
Common Reptiles	No risk of killing/injury, maintain favourable conservation status i.e. good population of Slow-worm.
Birds	No disturbance of active nests, and increase in availability of suitable nesting habitat (to be of benefit to a range of common bird species).
Hedgehog (<i>Erinaceus europaeus</i>)	Increased opportunities for species.

4 Relevant Legislation and Policy

4.1 Legislation

4.1.1 Wildlife legislation and policy relevant to the proposed works, based on the findings of the desk study and field surveys are set out below. This legal information is a summary only, and the original legal documents should be consulted for definitive information.

Table 4.1: Legislation Protection Afforded to Sites/Habitats that could Potentially be Affected by the Proposed Works

Designated Site/Habitat	Legal Status
Ramsar Sites	Ramsar Sites are wetlands of international importance designated under The Ramsar Convention. They are afforded the same level of protection as SSSIs under the Wildlife and Countryside Act 1981 (as amended). UK policy, however, affords the same level of protection to Ramsar Sites as SPAs/SACs in terms of the consideration of impacts on their integrity subject to Habitats Regulations Assessment.
Special Protection Areas (SPA)	SPAs are strictly protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC), also known as the Birds Directive. They are classified for rare and vulnerable birds, listed in Annex I of the Birds Directive, and for regularly occurring migratory species. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2012 (as amended) are the legal instrument for implementing the Birds Directive in the UK.
Special Area of Conservation (SAC)	SACs are strictly protected areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed in Annexes I and II of the EC Habitats Directive. The Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2012 (as amended) are the legal instrument for implementing the Habitats Directive in the UK.
Sites of Special Scientific Interest (SSSI)	SSSIs are the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been re-notified under the Wildlife and Countryside Act 1981 (as amended). Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000.

Table 4.2: Legislation Protection Afforded to Species that could Potentially be Affected by the Proposed Works

Species	Legal Status
European Protected	
Bats	These animal species and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats and Species (Amendment) Regulations 2012, which makes it illegal to: - Deliberately capture, injure or kill any such animal or to deliberately take or destroy their eggs; - Deliberately disturb such an animal; - Damage or destroy a breeding site or resting place of such an animal. European Protected Species (EPS) licences can be granted by Natural England in respect of development to permit activities that would otherwise be unlawful under the Conservation Regulations, providing that the following 3 tests (set out in the EC Habitats Directive) are passed:

Species	Legal Status
	- The development is for reasons of overriding public interest; - There is no satisfactory alternative; and - The favourable conservation status of the species concerned will be maintained and/or enhanced. Under Regulation 9(5) of the Conservation Regulations, Planning Authorities have a legal duty to 'have regard to the requirements of the EC Habitats Directive in the exercise of their functions'. This means that they must consider the above 3 tests when determining whether Planning Permission should be granted for developments likely to cause an offence under the Conservation Regulations. As a consequence, Planning Applications for such developments must demonstrate that the 3 tests will be passed.
Nationally Protected	
Bats	These animals receive full protection under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: - Intentionally kill, injure or take any such animal; - Intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any such animal; and Intentionally or recklessly disturb such animals while they occupy a place used for shelter or protection.
Slow-worm	These animals receive limited protection under The Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal to intentionally kill or injure any such animal.
Nesting Birds (general)	All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000), which makes it illegal (subject to exceptions) to: - Intentionally kill, injure or take any wild bird; - Take, damage or destroy the nest (whilst being built or in use) or eggs of any wild bird.
Invasive Species	
None	-

4.1.2 Section 40 of the Natural Environment and Rural Communities Act 2006 (the NERC Act) places a legal duty on public bodies, including planning authorities, to 'have regard' to the conservation of biodiversity when carrying out their normal functions, which includes consideration of planning applications.

4.1.3 In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principal importance for conserving biodiversity in England under the UK Post-2010 Biodiversity Framework. This is known as the list of Habitats and Species of Principal Importance (HPI/SPI), of which there are 56 habitats and 943 species. The HPI/SPI list is used to guide planning authorities in implementing their duty under the NERC Act.

4.2 National Planning Policy

4.2.1 The NPPF set out the Government's planning policies for England and how these are expected to be applied. At the heart of the NPPF is a presumption in favour of sustainable development. This presumption does not apply where development requiring Appropriate Assessment under the Birds or Habitats Directives is being considered, planned or determined.

4.2.2 The NPPF states that:

'When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm 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;
- proposed development on land within or outside a Site of Special Scientific Interest (SSSI) likely to have an adverse effect on a SSSI (either individually or in combination with other developments) should not normally be permitted. Where an adverse effect on the site's notified special interest features is likely, an exception should only be made where the benefits of the development, at this site, clearly outweigh both the impacts that it is likely to have on the features of the site that make it of special scientific interest and any broader impacts on the national network of SSSIs;
- development proposals where the primary objective is to conserve or enhance biodiversity should be permitted;
- opportunities to incorporate biodiversity in and around developments should be encouraged;
- planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss; and
- the following wildlife sites should be given the same protection as European sites: potential Special Protection Areas (SPA) and possible Special Areas of Conservation (SAC); listed or proposed Ramsar sites; and sites identified, or required, as compensatory measures for adverse effects on European sites, potential SPAs, possible SACs, and listed or proposed Ramsar sites.'

4.2.3 Under the NPPF, the Planning Authority has a responsibility to promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations, linked to national and local targets, and identify suitable indicators for monitoring biodiversity in the plan.

4.2.4 Also under the NPPF the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.

4.3 Local Planning Policy

4.3.1 A Havant borough Core Strategy (March 2011). Policy CS11 Protecting and Enhancing the Special environment and Heritage of Havant Borough:

"Planning permission will be granted for development that:

1. Ensures the key landscape and built form principles set out in the Havant Borough Townscape, Landscape and Seascape Character Assessment are protected and where possible enhanced by partnership working with developers, groups and the wider community.
2. Protects and where possible enhances the borough's statutory and non-statutory designated landscape, habitats and features of biological, hydrological or geological

interest. Protection and enhancement will be achieved by appropriate adaption and mitigation measures including wardening, education and information and the creation of new habitats, waterbodies/courses planting of new trees and woodland.

3. Has particular regard to the following hierarchy of nature conservation designations within the borough (as identified on the Proposals Map):
 - i. Special Protection Area (SPA), Special Areas of Conservation (SAC) and Ramsar [International];
 - ii. Sites of Special Scientific Interest (SSSI) and National Nature Reserves [National]; and,
 - iii. Sites of Importance for Nature Conservation (SINC), Local Nature Reserves (LNR), other Ancient Woodland not identified in (ii) above [Local].
4. Protects and where appropriate enhances the borough's statutory and non-statutory heritage designations by appropriately managing development in or adjacent to conservation areas, listed buildings, scheduled ancient monuments, historic parks and gardens, archaeological sites, buildings of local historic or architectural interest.
5. Supports an ongoing programme of survey of habits and species and designations of Sites of Importance for Nature Conservation.
6. Incorporates partnership working with conservation organisations to improved public understanding of biodiversity and to manage public access to designated sites, particularly on the coast, to reduce harm to nature conservation interests.
7. Incorporates partnership working with landowners and developers to ensure land management practices restore, enhance and where appropriate create new valued landscapes, habitats and their soil structure, particularly the ancient woodland remnants of the Forest of Bere and costal salt marsh.
8. Protects wildlife habitats and wildlife corridors to prevent the fragmentation of existing habitats and to allow species, for example Brent Geese, to respond to the impacts of climate change by making provision for habitat adaption e.g. coastal managed realignment and species migration.
9. Maintains undeveloped gaps between the settlements of Emsworth;/ Havant/Waterlooville; Havant/Portsmouth; Emsworth/Westbourne and Leigh Park/Rowlands Castle as shown on the Proposals Map (see references).
10. Protects the best and most versatile agricultural land that has the greatest potential for local food security.
11. Responds to the merging evidence from the Solent Disturbance and Mitigation Project, the published recommendations, and future related research.

4.3.2 Policy DM8 Conservation, Protection and Enhancement of Existing Natural Features:

"Development will only be permitted where it protects and enhances local habitats and landscape distinctiveness and which addresses all of the relevant criteria as set out below:

1. Protects natural features of nature conservation and/or amenity importance on the site, for example trees, woodlands, hedgerows, soils streams, stream corridors, springs, ditches or ponds from damage, destruction and a deterioration in quality.
2. Sympathetically incorporates existing features into the overall design of the scheme including measures taken to ensure their continued survival.

3. Provides new landscape works that integrate successfully with the local environment and existing natural features, using local materials and plant species and making provision for future maintenance of new landscape works associated with new developments.
4. Ensures sequences of greenspaces are maintained and protects the attractiveness and visual amenity of all green open spaces that contribute to the identity of the borough.”

5 Impacts

5.1.1 Potentially damaging construction-type activities are listed below. These have been identified from: the proposed site layout as detailed within Appendix A; proposed construction practices; and current guidance on activities/operations likely to result in impacts to ecological features (CIEEM, 2016):

- Movement of machinery and vehicles;
- Site clearance;
- Strimming of vegetation;
- Tree felling/surgery works;
- Digging/excavation or infilling;
- Pollution/silt runoff;
- Dust/air pollution;
- Noise;
- Lighting;
- Use of cranes;
- Dumping, spreading, discharge or storage of materials;
- Construction of roads, hardstanding or buildings;
- Laying of pipes and cables;
- Erection of permanent or temporary structures; and
- Engineering works including drilling.

5.1.2 Taking into consideration the expected zone of influence of each of these activities, potential direct or indirect impacts resulting from the proposed construction activities have then been identified. This includes (but is not limited to): short-term impacts: disturbance; and long-term impacts: modification, loss, and fragmentation/ isolation. Aspects of ecological structure and function considered when predicting impacts includes: available resources; environmental processes; ecological processes; human influences; historical context; ecological relationships; ecological role or function; ecosystem properties; and other environmental influences (CIEEM, 2016).

Table 5.1: Potential Impacts to Ecological Features

Ecological Feature	Potential Impact
Chichester & Langstone Harbours Ramsar, SPA, SSSI, Solent Maritime SAC, and Warblington Meadow SSSI	Yes- a) Potential pollution/silt runoff during construction activities. Minor adverse, temporary, reversible impact.
River/Stream HPI/Local BAP Priority Habitat (Lavant Stream, 'pipe link', and Hermitage Stream catchment)	Yes- a) Potential direct impact though disturbance of stream banks during construction. Minor adverse, permanent, reversible impact. b) Potential indirect impacts though pollution/silt runoff during construction activities. Minor adverse, temporary, reversible impact.
Hedges HPI/Local BAP and Trees	Yes – a) All boundary hedgerows and mature/TPO trees to be retained, but likely degradation if works within root zones, and from cutting/poor management during construction and operation of site. Minor, adverse, permanent, reversible impact

Ecological Feature	Potential Impact
Bats (potential roosting)	Yes – a) Risk of disturbance to roosts, and killing/injury of bats during any tree surgery works. (IF roosts present) Significant adverse, temporary, reversible impact (no impacts if no roosts).
Common Reptiles	Yes – a) risk of killing/injury during site clearance works. Significant adverse, temporary, irreversible impact. b) loss of suitable habitat during site clearance. Minor adverse, permanent, reversible impact.
Birds (general nesting)	Yes – a) potential disturbance of active nesting birds during site clearance. Minor adverse, temporary, irreversible impact. b) loss of suitable nesting habitat during site clearance. Minor adverse, permanent, reversible impact.

6 Mitigation

6.1 Mitigation

6.1.1 For each potential impact identified, all mitigation options provided follow the established mitigation hierarchy as set out in BS42020:2013 (BSI, 2013). This seeks as a preference to avoid impacts, then to mitigate unavoidable impacts, and as a last resort, to compensate for unavoidable residual impacts that remain after avoidance and mitigation measures. All recommended mitigation measures follow current best practice guidance as identified by CIEEM (CIEEM, 2014), and is proportionate to the level of impact identified and to the nature and scale of the proposed works. A clear and valid justification of methods has been provided where necessary. Where applicable, mitigation measures should make reference to the Construction (Design and Management) Regulations 2015 (CITB, 2016). In accordance with national and local planning policy, opportunities for biodiversity enhancement (above and beyond those required to mitigate for any identified impacts) have also been included.

Chichester & Langstone Harbours Ramsar, SPA, SSSI, Solent Maritime SAC, and Warblington Meadow SSSI

6.1.2 Avoidance: Potential indirect impacts to Chichester & Langstone Harbours Ramsar, SPA, SSSI, Solent Maritime SAC, and Warblington Meadow SSSI (and all downstream habitats) will be avoided through the incorporation of Pollution Prevention Guidelines (specifically PPG5) or similar updated guidance.

6.1.3 Mitigation: None proposed.

6.1.4 Compensation: None proposed.

6.1.5 Enhancements: None proposed.

River/Stream HPI/Local BAP Priority Habitat (Lavant Stream, 'pipe link', and Hermitage Stream catchment)

6.1.6 Avoidance: Direct impacts to the banks of Lavant Stream will be avoided by creating an 8m buffer along the length of the Lavant Stream. This will be by marked with temporary heras fencing during construction activities as necessary. Where works are required within this 8m buffer (i.e. vegetation clearance, boundary fencing, new planting, enhancements etc), this will proceed under the direction of an ecologist.

6.1.7 Mitigation: If avoidance of direct impacts to the stream is not practical during construction activities through implementation of an 8m buffer zone, written consent will be required from the EA, and an appropriate mitigation strategy incorporated.

6.1.8 Compensation: None proposed.

6.1.9 Enhancements: Minor enhancements to be undertaken to Lavant Stream will include:

- Removal of excess silt build up to expose shingle stream bed, and to help improve the flow of water;
- Management of bordering vegetation, to prevent scrub encroachment over the channel and reduce shade, which will allow the establishment of aquatic vegetation;
- Installation of 2x 1FF Schwegler Bat boxes (or similar product) upon mature trees (at least 6ft from the ground facing south-west, situated away from lighting and human disturbance to increase bat roosting opportunities for wildlife along the channel; and

- Installation of a single Schwegler No.19 Dipper and Pied Wagtail Nest Box located beneath bridge structures along the stream to provide additional nesting opportunities.

Hedges HPI/Local BAP and Trees

6.1.10 Avoidance: To avoid impacts to retained hedgerows and trees (during construction and operation of the site) at least a 1m buffer will be created along the edge of hedgerows. Appropriate root protection zones will be established in accordance with BS5837:2012. Where necessary, an arboriculturist will be consulted to determine the extent of root protection zones, and the installation of protection fencing will be considered. At least a 5m buffer will be created around any mature trees where practical.

6.1.11 Mitigation: None proposed.

6.1.12 Compensation: None proposed.

6.1.13 Enhancements: Refer to Appendix A proposed landscape plan for details of new tree, shrub and hedgerow planting which will help improve green infrastructure and connectivity across the site.

Bats

6.1.14 Avoidance: Where surgery works are required to mature trees, an ecologist will inspect these prior to the commencement of works to determine the presence/absence of Potential Roosting Features (PRFs). Any PRFs will be retained to avoid impacts to potential bat roosts.

6.1.15 Mitigation: None proposed.

6.1.16 Compensation: None proposed.

6.1.17 Enhancements: As above Lavant Stream enhancement (i.e. installation of 2x 1FF Schwegler Bat boxes).

Common Reptiles

6.1.18 Avoidance: Avoidance of killing/injury as below mitigation strategy.

6.1.19 Mitigation: Translocation with exclusion fencing etc undertaken from September 2015 to October 2016. Refer to Reptile Translocation Report (Enzygo, 2016). Remaining mitigation tasks to be undertaken include:

- Continued maintenance of habitats prior to the commencement of construction activities;
- Destructive search including turf strip under the supervision of an Ecological Clerk of Works (ECoW) prior to the commencement of works; and
- Removal of remaining exclusion fencing upon completion of construction works by ECoW.

6.1.20 Compensation: Translocation and works to Staunton Country Park. Refer to Translocation Report (Enzygo, 2016).

6.1.21 Enhancements: To enhance the site for any residual common reptile population (and other wildlife such as common amphibians and invertebrates), 6 informal reptile hibernacula (i.e. brash piles) will be created along the eastern boundary/beside Lavant Stream and throughout the south-eastern corner of the site around an improved SUDS feature.

Birds

6.1.22 Avoidance: To avoid the disturbance of active nesting birds, hedgerows and trees will be cleared from September to February, outside of the bird nesting season. As timing constraints associated

with other protected species (i.e. common reptiles) will also need to be taken into consideration, it may be necessary to clear suitable bird nesting habitat between March and August. In this instance, a suitably qualified Ecological Clerk of Works (ECOW) will survey habitat immediately prior to its removal. If an active nest is present, at least a 5 metre radius buffer area (or wider as appropriate and dependent upon the species identified) will be set out, or the vegetation retained until any young have fledged. To prevent contractors accidentally straying into the buffer area, these will be clearly marked out i.e. with high visibility fencing.

6.1.23 Mitigation: None proposed.

6.1.24 Compensation: To compensate for the limited loss of suitable bird nesting habitat, additional native trees and planting will be incorporated into proposed landscaping and across the site which will provide cover (and foraging sources) for a range of common bird species. Refer to Appendix A proposed landscape plan.

6.1.25 Enhancements: As above Lavant Stream enhancement (i.e. single Schweidler No.19 Dipper and Pied Wagtail Nest Box).

Hedgehog

6.1.26 Avoidance: None proposed.

6.1.27 Mitigation: None proposed.

6.1.28 Compensation: None proposed.

6.1.29 Enhancements: As above common reptile enhancements (i.e. brush piles) will also benefit Hedgehog.

7 Scope of Works and Schedule

7.1 Scope of Works

7.1.1 Refer to Appendix A for proposed site layout (and working footprint), along with the location of mitigation prescriptions.

7.2 Works Schedule

7.2.1 The mitigation and enhancement will be undertaken in accordance with the proposed programme of works. The programme takes into account: seasonal constraints; the expected timetable of works (i.e. when site clearance needs to be undertaken, and when construction works are due to commence); and any other timing considerations.

Table 7.1: Works Schedule

Recommendation	2017											
	J	F	M	A	M	J	J	A	S	O	N	D
Site Clearance, including turf strip and check for reptiles by ECoW												
PPG5, avoidance of pollution/silt runoff												
Erection and maintenance of 8m buffer alongside Lavant Stream												
Enhancements to Lavant Stream												
ECoW required to inspect suitable bird nesting habitat												
Creation of 6 informal hibernacula												
Installation of 2x 1FF Schwegler Bat boxes												
Installation of Schwegler No.19 Dipper and Pied Wagtail Nest Box												
New Planting (as construction works progress)												

8 Mechanisms to Secure Delivery

8.1 General

- 8.1.1 Prior to the commencement of any works on site, including the setting up of site compounds and access onto the site, the main contractor (and any personnel appointed by the main contractor) will receive a formal briefing by the main ecologist or their appointed representative. This briefing will detail all relevant protected species issues as set out within this CEMP. A copy of this document must be read and understood by all contractors conducting the works.
- 8.1.2 The main contractor will be responsible for relaying any necessary information to contractors on site, either employed by them directly or third parties. Advice should be sought from Enzygo's Principal Ecologist in the event of complex issues arising or in cases where there is any doubt as to the action to be taken. Deviation from this CEMP will only be undertaken upon written agreement with Enzygo.

8.2 Contact Details

- 8.2.1 Details of each party are as follows:

- Main Ecologist/point of contact – Derek Allan, Principal Ecologist c/o Enzygo Ltd: 01454 269237 or 07398 663744 derek.allan@enzygo.com;
- Ecological Clerk of Works (ECoW) - Josh Richardson, Graduate Ecologist c/o Enzygo Ltd: 01454 269237 or 07545 927532;
- Main Contractor/point of contact – TBC and
- Site Manager – TBC.

- 8.2.2 The Principal Contractor for these works is to be confirmed, who will be responsible for ensuring that all works are undertaken in accordance with the Construction (Design and Management) Regulations 2015 (CITB, 2016).

- 8.2.3 The site is currently owned by Hampshire County Council with Ashley House plc under contract to undertake works.

8.3 Role of Client/Third Party Contractors

- 8.3.1 The client, Ashley House plc, or a third party employed to undertake specific services, will be responsible for implementing all of the aforementioned avoidance/mitigation/ enhancement measures. These will proceed under ecological supervision where relevant.

8.4 Role of Ecological Clerk of Works

- 8.4.1 A suitably qualified and experienced ecologist, licensed/accredited where necessary, will be provided and act as an ECoW. The role of the ECoW is in accordance with BS42020:2013 (BSI, 2013) and will satisfy the following requirement:

'An ecological clerk of works should be able to demonstrate a level of experience and competence commensurate with the complexity of the role needed on site to deal with the wide range of ecological issues likely to be encountered and to adapt to new and unforeseen challenges raised by development activities'.

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Appendix A – Proposed Site Layout



DESIGN OBJECTIVES

To create a safe, attractive and stimulating environment for residents, staff and visitors.

- The design seeks to:
- create a range of spaces of distinctive character and that offer a range of experiences;
 - provide opportunities for residents to engage with and influence their environment;
 - ensure that the environment is safe, secure and legible;
 - provide an attractive setting for the building and activities within;
 - provide privacy for residents within the building;
 - ensure the protection and integration of important existing vegetation;
 - create an ecologically rich environment, incorporating a range of planting and habitat; and,
 - specify planting that offers sensory and seasonal interest.

For further details refer to the landscape section of the Design & Access Statement

KEY

- Site Boundary
- Levels (indicative - subject to confirmation by engineer)
- Existing trees to retain
- Existing hedge to retain
- Feature tree
- Pleached tree
- Multi-stem tree
- Specimen plant
- Ornamental hedge
- Mixed ornamental border
- Ground cover planting
- Climbing plant
- Meadow
- Lawn
- Pergola
- Seat type 1
- Seat type 2 (sculptural cubes)
- Water feature
- Sculptural feature
- Raised plant bed (incorporating seating)
- Raised plant bed (incorporating wicking system)
- Greenhouse
- Compost area
- Bin store (enclosed within pergola, fence and trellis)
- Cycle store
- Sprinkler housing

2-2.5m high timber acoustic fence

1.5m high grey steel railings

1.8m high timber fencing

1.5m high glass balustrade

Timber trellis panels

Vehicular gate

Pedestrian gate

Freestanding handrail

Retaining wall and handrail

Steps

Ramp

Feature paving type 1

Feature paving type 2

Feature paving type 3

Decking

Resin bounded gravel

Concrete block paving

Tarmac surface

Compacted gravel

Stepping stones type 1

Stepping stones type 2

LightingArboricultureEcologyArchitecture

Boundary Treatment, Access and Level Change

Hard Surface Treatment

Lighting

Lighting to consist of low level bollards, in ground lighting and feature lighting

Arboriculture

For details of existing vegetation to be retained and protection measure refer to the arboriculturalist's information

Ecology

For details of existing site ecology and recommendations refer to the ecologist's information

Architecture

For details of buildings, including details of the extensive green roof refer to the architect's plans



SCALE	PROJECT NO.	PROJECT
1:500@A2	CRM.1112.005.L.D.007	HAVANT HEALTH AND WELLBEING CAMPUS
DATE	DRAWING NO.	DRAWING TITLE
March 2015	7 (revision B)	LANDSCAPE PROPOSALS
DRAWN	CHECKED	CLIENT
SF	PB	HAMPSHIRE LIVING SPACE



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