

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Rev C 11/07/2024

Rev B 12/06/2024

Rev A 29/04/2024

Site

Detailed application for the redevelopment of the Land at Cowplain School, Hart Plain Avenue, Waterlooville, PO8 8RY site including 6 houses (2 x 4 bed detached houses and 4 x 3 bed semidetached houses).



Prepared by Imperial Homes Southern Counties Ltd

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Introduction

This Construction Environmental Management Plan has been prepared to support the Detailed planning permission for the redevelopment of the Land at Cowplain School. The approved planning consent supports 6 open tenure houses (2 x 4 bed detached houses and 4 x 3 bed semidetached houses). It is hoped that the information contained within this statement will assist the Local Planning Authority in discharging condition no. 24 attached to Planning Consent Ref. APP/22/00837.

The CEMP defines the minimum requirements that are to be met and covers the management of the main contractor's activities and those of any sub-contractor working under the main contractor's control. This involves taking actions to reduce the likelihood or severity of future emergencies. Mitigation activities include building codes and zoning regulations, infrastructure improvements, and public education initiatives.

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All enquiries and complaints to be directed to the above personnel either by telephone or written and posted to above address.

Residents to be provided with the above contact details for someone on site to deal with queries and advising them of working hours and who to contact if there are problems outside working hours. A notice outside the site entrance gates will be provided with these details and delivered to the immediate neighbours boarding the site boundaries including Cowplain School.

The scope

The CEMP address issues associated with:

- 1) Noise and Vibration
- 2) Air Quality
- 3) Visual Impact
- 4) Ecology
- 5) Water Pollution
- 6) Waste
- 7) Contaminated Land
- 8) Construction Traffic Management
- 9) Protection of Existing Services
- 10) Community Responsibility
- 11) Lighting

The CEMP requirements

1. Noise and Vibrations:

The proposed site's location and intended construction activities are not anticipated to pose significant risks in terms of noise and vibration. Nonetheless, it is incumbent upon contractors to implement measures aimed at mitigating any potential noise and vibration disturbances during the construction phase.

Ground works, involving conventional trench filled foundations, will be engineered to suit prevailing ground conditions. Machinery required for these operations will be of a small-scale nature, commensurate with the scope of the development. All machinery deployed will adhere to statutory regulations and prescribed noise control standards.

As deemed necessary, plant and equipment will be outfitted with silencing mechanisms, screening, or enclosures, in alignment with the guidelines outlined in BS5228. Particularly noisy activities will be shielded through the erection of hoardings or screening structures. It is stipulated that no explosive materials are to be utilised on-site, and the use of radios will be regulated to prevent any nuisance. Vulgar language will be strictly prohibited due to site location.

The use of generators will be restricted to small-scale operations and confined to designated hours, with a prohibition on usage during nighttime or outside of standard working hours. All construction-related activities, encompassing demolition, building, and machinery operation, are to be conducted exclusively between the hours of 08:00am and 6:00pm from Monday to Friday, and between 08:00am and 1:00pm on Saturdays, with no work scheduled on Sundays or recognised public holidays.

2. Air Quality:

The location of the site and the planned construction activities are not expected to pose a significant risk to air quality. Nevertheless, it is imperative that contractors undertake measures to minimise the presence of airborne dust during the construction phase.

It is projected that dust may travel up to 200 meters from its point of origin. The primary mitigation strategy to prevent contamination of neighbouring properties and infrastructure entails maintaining construction activities at a minimum distance of 200 meters from the site perimeter. However, this may not be feasible due to the compact nature of the site and the proximity of works to adjoining boundaries. To address this challenge, appropriate fencing is to

be erected along the boundaries, supplemented with material infill to mitigate dust dispersion. Furthermore, the following supplementary measures should be implemented where practical:

1. Implementation of design controls for construction equipment and vehicles, with preference given to appropriately designed vehicles for materials handling. This includes the utilisation of vehicle sheeting where deemed necessary.
2. Prompt vegetative covering of completed earthworks to mitigate dust dispersion.
3. Regular inspections of the site are imperative, with particular attention given to monitoring site boundaries for the presence of dust and deposits. Any detected accumulation is to be promptly removed as necessary. Furthermore, local roads adjacent to the site are to undergo routine checks and cleaning procedures when deemed necessary to maintain cleanliness standards.
4. Provision of a reliable water supply and hoses is essential to facilitate the suppression of dust during specific operations that are prone to generating airborne particles. It is imperative that no burning of materials occurs on-site to mitigate air quality degradation and associated risks.

3. Visual Impact:

The contractor's compound and designated areas for material storage must be situated within the allocated development site and meticulously fenced and secured. The selection of these locations should reflect an acute awareness of the visual impact on nearby residential properties and the adjoining boundaries of the site. Special consideration is warranted to ensure that the placement of these facilities does not unduly compromise the aesthetic integrity or privacy of neighbouring residences, thereby fostering harmonious coexistence within the community. Added to this, careful engagement has been welcomed by The Cowplain Schools facility manager, to further ensure a collaborative approach is taken during the construction phase of the project.

4. Ecology:

Regarding the Preliminary Ecological Appraisal for the land at Hart Plain Avenue, Waterloo, Project Number B21016, Appendix B, Imperial Homes Southern Counties Ltd. will adhere to the recommendations outlined in the report issued by The Landscape Partnership, Planning and Designing Environments for Life, on 8th July 2022. The report's recommendations are as follows:

7.1.1 It is recommended that the following conditions, based on model

conditions in Appendix D of BS42020:2013, are applied to the planning permission.

7.1.2 No removal of hedgerows, trees or shrubs shall take place between 1st March and 31st August inclusive, unless a competent ecologist has undertaken a careful, detailed check of vegetation for active birds' nests immediately before the vegetation is cleared and provided written confirmation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site. Any such written confirmation should be submitted to the local planning authority.

The preservation of existing trees and hedges to be protected, and every effort must be made to retain them wherever feasible. Identified trees and hedges earmarked for preservation must be clearly demarcated and shielded from any construction-related activities to prevent damage or disturbance. Should the need arise for the removal of trees and hedges, such actions must be conducted outside the nesting season to minimise ecological impact. It is imperative that ecological reports be diligently consulted and factored into decision-making processes to ensure responsible stewardship of the natural environment.

The Trustee of Hampshire Swifts (Appendix C) has conducted a comprehensive report evaluating the presence and support of swift populations in the region. This report highlights the importance of providing adequate nesting sites to support the declining swift populations, which are vital for maintaining local biodiversity and ecosystem balance. In alignment with the recommendations from the Hampshire Swifts report, Imperial Homes Southern Counties has taken proactive steps to support local swift populations. As part of their commitment to environmental stewardship and biodiversity, Imperial Homes will install one swift box for each dwelling unit in the development. Appendix D includes a detailed site plan that clearly labels the locations of all installed swift boxes.

5. Protection of Water Resources:

The following activities present potential risks of watercourse contamination, and corresponding mitigation measures have been identified:

Deliveries: During deliveries, particularly those involving fuels and hazardous materials, meticulous care must be exercised. Each delivery is to be supervised by a designated responsible individual, with contingency plans established and appropriate materials readily available to address any unforeseen incidents.

Storage: Given the inherent risks associated with materials commonly used in construction,

such as oils, chemicals, cement, lime, cleaning agents, and paints, stringent measures must be taken to prevent pollution. All hazardous materials are to be stored in securely sealed containers placed within designated secure cabins, positioned on impervious bases to minimize the risk of seepage.

Security: Maintaining the security of containers and storage cabins within the confines of the development site is imperative. All containers and cabins are to be securely always locked to prevent unauthorized access and potential tampering.

Silt: Water containing silt must never be discharged into surface water drains, as it poses a significant risk of contamination. Sources of silty water may include excavations, exposed ground, stockpiles, and plant and wheel washing activities. It is imperative that appropriate measures be implemented to contain and manage silt-laden water to prevent its entry into surface water drains, thereby mitigating the risk of watercourse contamination.

Preventive measures must be implemented to hinder water ingress into excavations, and spoil heaps should be positioned and configured in a manner that minimises the risk of groundwater contamination. Facilities for wheel washing and plant cleaning must be securely constructed to prevent overflow, with effluent containment for subsequent treatment and proper disposal. Wheel washing facilities should be conveniently situated next to the site entrance, mandating that all departing vehicles undergo thorough cleaning to prevent off-site contamination.

Site roads must be meticulously maintained to prevent the accumulation of dust and mud deposits. In periods of dry weather, additional measures may be necessary to suppress dust. Refuelling operations pose a heightened risk of fuel spillage, particularly during plant refuelling. Therefore, all refuelling activities are to be conducted in designated areas, ideally on impermeable surfaces situated away from drains and watercourses to mitigate the risk of environmental contamination.

Concrete, owing to its highly alkaline and corrosive nature, demands particular attention to prevent adverse impacts on watercourses. Stringent protocols must be observed during all concrete-related operations. Adequate provisions must be made for the containment and proper disposal of washings from concrete mixing plants or ready-mix concrete lorries, ensuring that no runoff enters drainage systems or watercourses. These measures are indispensable for safeguarding environmental integrity and upholding regulatory compliance.

6. Waste:

The contractor is required to develop a comprehensive site waste management plan, which

encompasses the following key components:

1. **Organisational Responsibility:** Clearly delineate the responsibilities for the preparation and implementation of the waste management plan within the organisational structure.
2. **Waste Types and Quantities:** Identify the anticipated types and quantities of waste expected to be generated throughout the project duration.
3. **Monitoring Measures:** Outline the measures to be employed for monitoring the delivery and execution of the waste management plan.
4. **Waste Management Options:** Enumerate available options for waste management and express preferences, considering factors such as recycling, reuse, and disposal methods.
5. **Waste Disposal Sites and Contractors:** Specify proposed waste disposal sites and contractors, ensuring that all designated sites are approved by the relevant Waste Regulation Authority.
6. **Hazardous and Non-Hazardous Waste Disposal:** Clearly define procedures for the disposal of hazardous and non-hazardous waste, ensuring compliance with regulatory requirements.
7. **Training:** Detail plans for providing necessary training to personnel to effectively implement the waste management plan.
8. **Efficient Use of Materials:** Propose measures to ensure the efficient use of materials and minimise waste production and handling throughout the project lifecycle.
9. **Waste Monitoring:** Establish protocols for monitoring the quantity and types of waste generated, facilitating informed decision-making and continuous improvement.

The overarching objectives of the waste management plan are as follows:

1. **Minimisation of Waste:** Strive to minimise the creation of waste wherever feasible through proactive measures.
2. **Site Cleanliness:** Regularly remove rubbish, debris, surplus material, and spoil to maintain a clean and tidy site environment.
3. **Controlled Waste Disposal:** Ensure that waste disposal activities are managed in a controlled and responsible manner, adhering to relevant regulations and standards.
4. **Surplus Material Recycling:** Minimise surplus material generation and prioritise recycling efforts for any non-usable surplus material.
5. **Documentation Compliance:** Provide all necessary waste transfer documentation to ensure transparency and regulatory compliance throughout the waste management process.

7. Contaminated Land:

The contractor is mandated to adhere to the recommendations outlined in the Contamination Report and Soil Investigation Report conducted for the site. These reports meticulously identify potential contamination sources and prescribe appropriate mitigation measures in the event of contamination detection on the site.

Additionally, further planning conditions are enforceable to ensure that any identified contamination is effectively addressed before resuming any works on the site. These conditions are instituted to safeguard environmental and public health interests, underscoring the paramount importance of thorough remediation measures to mitigate any adverse impacts associated with site contamination.

By diligently implementing the prescribed mitigation strategies and adhering to the stipulated planning conditions, the contractor demonstrates a commitment to environmental responsibility and regulatory compliance, thereby fostering the safe and sustainable development of the site. Reference should be made to the report carried out by Listers GEO - Geotechnical and Geoenvironmental Consultants.

Waste management will follow a strict plan for segregating, storing, and disposing of waste appropriately, with regular collections by licensed waste carriers. Buffer zones will be established to protect nearby nature-designated sites from encroachment by materials, machinery, vehicles, or construction activities, and these zones will be closely monitored throughout the construction period. Wheel and body cleaning facilities will be installed at site exits to prevent contamination of public roads, ensuring all vehicles leaving the site are cleaned.

8. Contractor and Construction Traffic Management:

Access to the site is facilitated via Hart Pain Avenue, the main public highway. As part of site preparation, the contractor is required to conduct a comprehensive condition survey of the road to assess its suitability for construction-related traffic. Construction vehicle routes will be clearly defined and communicated, and measures will be implemented to manage and control vehicle movements both within and outside the site. The designated construction route will be via London Road (A3), accessing Hart Plain Avenue, as detailed in Appendix E. Access to the site will be restricted to authorised contractors and vehicles only, facilitated by banksman and access control systems. Adequate on-site parking and turning areas will be provided for construction vehicles and personnel, with these areas clearly marked and properly maintained. Clear pedestrian path provided for health and safety at the site.

A temporary contractor's compound, as depicted in Appendix A, is to be established to accommodate necessary on-site operations. Parking provisions will be designated for subcontractors within the site premises. Parking outside the site is strictly prohibited; no parking will be allowed at the front of the site. All contractors are instructed to park within the site, in designated parking areas. Additionally, parking on the school's grounds outside of school hours and during holidays has been arranged and agreed upon with The Cowplain School. Designated loading and offloading areas within the site will ensure safe and efficient handling of materials. Adequate site office facilities will be provided for project management and administration, complying with health and safety regulations. Contractor parking areas will be allocated separately from operational zones, clearly marked and maintained.

To mitigate potential congestion during peak traffic hours on local roads, contractors are expected to schedule most of their staff to arrive on site by 08:00am and depart by 6:00pm excluding the dropping and picking up times mentioned further in the literature. Furthermore, the commencement of work each day should be mindful of noise management constraints to minimise disturbance to nearby residents and local school. Furthermore, delivery logistics will be strictly managed to avoid peak daytime hours and school opening and closing times, with all deliveries scheduled exclusively between 9:00am and 2:00pm, Monday through Friday. Given the site's proximity to a school, stringent additional regulations have been instituted to ensure the safety of workers, children, and other members of the public. An agreement has been reached with The Cowplain School stipulating that no deliveries shall be accepted between 8:00am and 9:00am, as well as between 2:45pm and 3:30pm, to avoid coinciding with school drop-off and pick-up times.

Additionally, no deliveries to be accepted and instructed between 4:00pm – 5:00pm weekdays and Saturday from 12:00pm and 1:00pm. All deliveries will be coordinated with contractors to adhere to these designated delivery hours. Imperial Homes Southern Counties Ltd utilises a single supplier for the majority of materials required at the Cowplain site. A schedule detailing delivery dates and times is forwarded to the supplier to mitigate potential conflicts with other deliveries. The supplier is instructed to consolidate deliveries to minimise disruptions, given the limited manoeuvring space and constraints within the site compound.

Considering the limited scale of the site and associated constraints, all contractors are directed to utilise the main access route for parking and deliveries. It is imperative for contractors to acknowledge the utilisation of the main road by residents and ensure minimal disruption to parking facilities and general traffic flow.

On-site turning provisions are to be provided to accommodate all vehicles, ensuring efficient

manoeuvrability within the designated area as illustrated on the site plan. The turning area must be always maintained clear to facilitate forward gear exits for all vehicles. In rare instances where an HGV necessitates either reversing onto or off the public highway, the presence of a trained banksman is mandated to assist in the manoeuvre, ensuring safety and mitigating potential risks. Wheel washing will be mandatory for all lorries and cars prior to exiting the site to reduce the dissemination of mud onto highways. In the event mud is dispersed onto the highways, sweeping and washing procedures will be promptly initiated.

Heavy machinery and construction vehicles will be prohibited from accessing the pathway unless utilising a road plate to minimise risks. Furthermore, scheduling construction activities during off-peak hours will further diminish potential conflicts and ensure safe passage for pedestrians in proximity to the development site, overseen by a banksman to manage movement. Regular inspections of the footways should also be undertaken to promptly address any arising issues during the construction phase. Please refer to appendix F for photographs taken of the site before commencement.

9. Protection of Existing Services:

Identification and protection of all existing services to the site are imperative to ensure the integrity of utilities and infrastructure. The main utility services must be accurately located, isolated as necessary, and seamlessly integrated into the new development. This process entails appropriate isolation of existing utility connections and their subsequent connection to the new development.

Existing drainage connections and manholes are to be carefully covered and protected before reconnection to prevent damage or contamination. This proactive approach not only safeguards the functionality of the existing infrastructure but also ensures the smooth transition and operational efficiency of the new development.

10. Site Management and Community Responsibility:

The contractor is mandated to foster open communication channels with residents and community groups to address any concerns they may raise and work towards amicable resolutions. This proactive engagement approach serves to promote transparency, alleviate potential issues, and cultivate positive relationships with residents.

Furthermore, contractors are expected to align with the objectives of the Considerate Constructors Scheme, which emphasises responsible and considerate practices throughout the construction process. By embracing these objectives, contractors demonstrate a commitment

to minimising disruption, enhancing safety, and mitigating environmental impacts, thereby contributing to the overall well-being of the community and environment.

11. Lighting:

The decision not to implement security or external lighting during construction works was carefully considered in terms of site safety and security.

Conclusion

The measures and mitigation methods outlined within this document demonstrate a comprehensive approach to minimising the environmental impact of the proposed construction development on the surrounding area. By addressing various aspects of the construction process, including air quality, watercourse contamination, waste management, site access, and community engagement, these measures are designed to uphold environmental standards and promote responsible construction practices.

By adhering to this CEMP, the construction project will minimise its environmental impact and ensure compliance with condition 24 relevant regulations and guidelines, promoting a safe and sustainable development process.

Furthermore, the commitment of all contractors to adhere to the recommendations outlined in this report ensures consistency in implementation and reinforces the effectiveness of the proposed mitigation measures. As such, it is reasonable to conclude that this statement fulfils the requirements of the planning consent, indicating a robust framework for managing environmental impacts throughout the construction phase of the development.



Construction Method Statement

The location of the site and the planned construction activities do not give rise to a serious risk to noise and dust. However contractors will be expected to take measures to minimise the present of noise and dust during construction.

As well the following additional measures should be implemented where practical:
 1) Design controls are to be implemented for construction equipment and vehicles, and appropriately designed vehicles are to be used for materials handling.

2) Completed earthworks are to be vegetated as soon as possible.

3) The site to be regularly inspected and site boundaries checked for dust and deposits and removed as necessary. In addition local roads are to be checked and cleaned when

There is to be no burning of material on site.

Where necessary plant and equipment will be silenced, screen and/or enclosed in accordance with the guidance of BS5228 and particularly noise activities will be shielded by the erection of hoardings or screening. No explosives are to be used on site. The use of radios on site is to be controlled so that it does not cause a

There will be heras fencing with gates to front and all the perimeter boundaries to all existing residential properties and the field. There will be no decorative displays or facilities for public viewing.

Preliminary Ecological Appraisal

for

Land at Hart Plain Avenue, Waterloooville

July 2022

Status: Issue

Quality Management	
Project:	Land at Hart Plain Avenue, Waterloooville
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Quality Standards
This report is certified BS 42020:2013 'Biodiversity – code of practice for planning and development' compliant and has been prepared in accordance with The Chartered Institute of Ecology and Environmental Management's (CIEEM) Technical Guidance Series '<i>Ecological Report Writing</i>' and Code of Professional Conduct. The copyright of this document rests with The Landscape Partnership. All rights reserved.

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Non-technical summary

The Landscape Partnership was commissioned by Frontier Estates Ltd to undertake a Preliminary Ecological Appraisal comprising a desk study, Phase 1 Habitat Survey, badger survey and an assessment of the potential of site features to support bats, together with an assessment of impacts at Land at Hart Plain Avenue, Waterloooville.

The objectives of the appraisal were to identify the habitats and species present or potentially present and evaluate their importance, assess the impact of the development proposal and describe any measures necessary to avoid impacts, reduce impacts or compensate for impacts so that there is no net harm to ecological features.

The survey involved classifying and recording habitat types and features of ecological interest and identified the potential for protected species to be present by assessing habitat suitability for those species. The survey was undertaken by appropriately qualified and experienced personnel.

The site comprises part of a school playing field and asphalt sports pitch, with a boundary hedge and scattered trees. Collectively the habitats within the proposed development site are assessed as being of value at the Parish level.

Based on the habitat types present, it is considered that the site has potential to support invertebrates (specifically stag beetle), and breeding birds.

The proposed development is the construction of a care home and 6 dwellings.

In the absence of mitigation, the proposed development would give rise to the following impacts

- Cumulative recreational impact upon Chichester and Langstone Harbours SPA and other Solent European sites
- Cumulative increase in nutrient nitrogen pollution into Chichester and Langstone Harbours SPA and other Solent European sites
- Loss of hedgerow and trees to form accesses
- Destruction of birds' nests whilst in use which would be an offence
- Loss of dead ash tree stump of value to stag beetle

Mitigation has been proposed, including payments to the Solent Recreation Mitigation Strategy, and to the Nutrient Neutrality mitigation scheme, planting of hedgerow and other native planting, removal of vegetation without harming nests, and retention of the ash tree stump. This mitigation would reduce the impacts of the development proposals upon the habitats and species present, to give rise to an overall **Neutral to Minor Beneficial** impact.

A number of **ecological enhancements** have been proposed, which would improve the quality of the site for native flora and fauna, including hedgehog tunnels, bat boxes, and bird boxes.

Calculations of Biodiversity Net Gain and of Nutrient Neutrality remain to be completed.

1 Introduction

1.1 Commission

- 1.1.1 The Landscape Partnership was commissioned by Frontier Estates Ltd to carry out a Preliminary Ecological Appraisal (PEA), comprising a desk study, Phase 1 Habitat Survey, badger survey and an assessment of the potential of site features to support bats, together with an assessment of impacts.

1.2 Legislation and policy background

- 1.2.1 There is a range of protection given to sites and species. Sites may be designated for local, national, or global importance for nature conservation. Species may be protected by varying levels of national regulation.
- 1.2.2 The Local Planning Authority has a policy to protect features of nature conservation value within its Local Plan. Other regulators have policies relating to the consents issued by them.
- 1.2.3 Further information is given in Appendix 1.
- 1.2.4 Assessment was undertaken against current legislation and planning policy, and in accordance with standard guidance. Further information is given in Section 2 and Appendix 2.

1.3 Site location and context

- 1.3.1 Cowplain School is an Academy for children aged from 11 – 16. It has a capacity of 1016 pupils and in October 2019 it has a roll of 819 pupils. It is situated on Hart Plain Avenue, Cowplain, accessed directly from the A3 London Road and around 1km north of Waterlooville, Hampshire. Hart Plain Infant School and Hart Plain Junior School are both adjacent. Cowplain School has a number of buildings in a campus type setting, with large playing fields. Many of the buildings date from the mid 20th century although some are early 20th century or possibly Victorian.
- 1.3.2 A small part of the school is proposed for development in two separate areas; the remainder of the school will continue to operate. The two development areas are on the site's northern boundary, adjacent to Hart Plain Avenue, and comprise a small part of the playing field, and a disused hard-surfaced play area respectively.
- 1.3.3 The Ordnance Survey Grid Reference for the approximate centre of the proposed development parcels are SU684108 and SU685108 respectively. The location of the site is shown in Appendix 3. A plan showing the site is provided at Figure 01.

1.4 Acknowledgements

Permissions to gain access to land

- 1.4.1 Permission from the school to gain access to the land for survey is gratefully acknowledged.

Surveyor Competencies

Survey(s) undertaken	Surveyor(s)	Experience (years)	Licences Held
Phase 1 habitat survey Badger survey Preliminary bat roost inspection: Trees	Nick Sibbett CEnv CEcol MCIEEM CMLI	30+	Great crested newt Class Licence CL08 (Level 1) Bat Class Licence CL18 (Level 2) Barn Owl class Licence CL29 FISC Level 3

Other contributors

- 1.4.2 We acknowledge the input of Hampshire Biodiversity Information Centre for provision of data. Nik Knight, chair of Hampshire Bat Group, has provided useful information about the bats within the Waterlooville area.

1.5 Description of the project

- 1.5.1 The development comprises the erection of a care home (within Use Class C2) and 6 dwellings (within Use Class C3), with associated works including access, parking and landscaping.
- 1.5.2 It is proposed to construct the 64-bed care home on the 0.53ha of the western site, currently playing fields. A new access from Hart Plain Avenue would be formed through a hedge. There would be car parking spaces and associated external landscape.
- 1.5.3 It is proposed to construct 2no detached houses and 4no semi-detached houses on the 0.21ha of the eastern site, currently hardstanding. Each house would have its drive leading to Hart Plain Avenue, with loss of hedge along the road frontage.
- 1.5.4 The development proposals are shown in Appendix 4 (drawing by WR Dunn).

1.6 Objectives of this appraisal

- 1.6.1 The purpose of this appraisal is to inform a planning application for the proposed development, as described above. Detailed objectives are to:
- identify the habitats and species present or potentially present and evaluate their importance;
 - identify any ecological constraints to development;
 - assess the impact of the development proposal;
 - identify any opportunities available for integrating ecological features within the development;
 - describe any measures necessary to avoid impacts, reduce impacts or compensate for impacts so that there is no net harm to ecological features;
 - propose ecological enhancements;
 - identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA).

1.7 Previous ecological studies

- 1.7.1 There are no known previous ecological studies of the site. A search of Hampshire County Council's planning website shows that in 2005 the Council made a planning application for the installation of hard surfaced sports pitches within the school. The application was withdrawn and location of these pitches differs from the current location on the site; I cannot find an application for the current hard surfaced sports pitches which according to Google Earth time series of aerial photographs were built in 2007.
- 1.7.2 Planning applications elsewhere in Hart Plain Avenue were searched back to 2010 to identify sites where ecological surveys might have been carried out. Most applications, even for multiple dwellings, were not accompanied by ecological appraisals. Surveys undertaken for development at 53 Hart Plain Avenue (planning application ref 13/00576) found that the site supported slow worms in a vegetable patch and a bat roost in an oak tree.

1.8 Duration of appraisal validity

- 1.8.1 The assessment, conclusions and recommendations in this appraisal are based on the studies undertaken, as set out in this report, and the stated limitations. This appraisal is based on the project as described and any changes to the project would need the appraisal to be reviewed. Unless otherwise stated, the assessment, conclusions and recommendations given assume that the site habitats will continue to be used for their current purpose without significant changes until development takes place. However, changes in use or management may occur between the time of the survey and proposals being implemented. Ecological features may change naturally at any time; for example, species may be lost from existing sites or colonise new areas.

Our knowledge of the ecology of the site enables us to provide an estimate of the duration of the validity of the surveys carried out and hence the applicability of this appraisal, so that any future need for review and update of this appraisal, or the surveys described within it, and the date by which such updates would become necessary, can be identified.

1.8.2

The table below sets out a guide to duration of validity of each element of each information source. If the proposed development is delayed beyond the stated timescale, updated surveys or further investigations may be required. Provided a planning application is made and validated prior to the end of the period stated below there would not normally be a requirement for further update survey except as indicated in Section 4.6.

Information source	Date undertaken	Guideline duration of validity from date undertaken	Notes
Desk study	4th August 2021	1 – 2 years	Further data may become available.
Phase 1 habitat survey	29th July 2021	5 years	The habitats on site are unlikely to change if they remain in school use.
Badger survey	29 th July 2021	2 years	The badger use of the site is unlikely to change if it remains in school use
Preliminary bat roost inspection: Trees	29 th July 2021	2 years	Storm damage, tree felling or other factors can change bat roost potential of trees.

2 Methodology

2.1 Desk study methodology

- 2.1.1 Hampshire Biodiversity Information Centre was asked to provide records of protected, rare and/or priority species and details of statutory and non-statutory designated sites, within a 1km radius of appoint near the site at SU68421070. The data were received on 4th August 2021.
- 2.1.2 The Magic website¹ was used to identify European sites within a 6km radius and national sites within a 2km radius. The Magic website was accessed on 13th September 2021.
- 2.1.3 Aerial photographs and OS maps were used to gain initial information about the site and the surrounding area. This gives an indication of the types of habitat and species likely to be present and the setting of the site within the landscape.
- 2.1.4 Water bodies within 250m of the site were identified from the relevant 1:25,000 Ordnance Survey map sheet, to establish the need for protected species scoping surveys, such as great crested newt Habitat Suitability Index surveys. Consideration was also given to the green infrastructure of the local area.
- 2.1.5 The potential for protected, rare and/or priority species to be present on site has been considered in this assessment, taking into account the nature of the site and the habitat requirements of the species in question. Absence of records does not constitute absence of a species. Habitats on the site may be suitable for supporting other protected species that have not previously been recorded within the search area. Conversely, presence of a protected species in the search area does not imply its presence on-site. Records of alien species, non-localised records (e.g. tetrad records) and records dated before 1995 have not been described in detail but are taken into account when considering likely species presence or absence.
- 2.1.6 The data supplied by the Records Centre were considered in the assessment of potential impacts below.
- 2.1.7 Hampshire Bat Group also provided a summary of bats in the Waterlooville area.

Limitations to desk study methodology

- 2.1.8 There were no significant limitations to the desktop study.
- 2.1.9 In accordance with BS42020 and advice from most Local Biological Record Centres, species lists are not appended to this report but are available to the Local Planning Authority on request.
- 2.1.10 Availability of records will vary in different locations, as many depend on the presence of local experts and survey effort within the local area. An absence of a record does not necessarily indicate the absence of that species.

2.2 Phase 1 habitat survey methodology

- 2.2.1 The standard Phase 1 (baseline) habitat survey methodology² was followed. Phase 1 habitat survey is a standardised system for surveying, classifying and mapping wildlife habitats, including urban areas. All habitats present and areas or features of ecological interest within such habitats were recorded and mapped. The survey methodology facilitates a rapid assessment of habitats and it is not necessary to identify every plant species on site. Where given, scientific names of plant species follow Stace ed. 4³.
- 2.2.2 The survey visit was also used to identify potential for protected, rare and/or priority species, for example bats, mammals, amphibians and reptiles, to occur on, or in the vicinity of, the proposed development site. Although the survey methodology is not intended for species survey, any protected, rare and/or priority species which were seen during the survey were noted.
- 2.2.3 The survey was undertaken on 29th July 2021 and the weather conditions were hot and dry.

¹ MAGIC: <https://magic.defra.gov.uk/MagicMap.aspx>.

² JNCC (2010) *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. Reprinted by JNCC, Peterborough.

³ Stace, C (2019) *New Flora of the British Isles*. C&M Floristics. 4th Edition.

Limitations to Phase 1 habitat survey

- 2.2.4 There were no significant limitations to the Phase 1 habitat survey.

2.3 Badger survey

Rationale

- 2.3.1 Badgers are protected from killing, injury, capture and ill-treatment, disturbance within a sett and their setts are also protected
- 2.3.2 Badgers inhabit a wide variety of habitats in the UK. Typical habitats include woodland, long grassland, scrub and hedgerows for sett excavation and foraging, with pasture and arable land also used for foraging.

Methodology

- 2.3.3 The proposed development site was systematically searched during the Phase 1 Habitat Survey for setts and other signs of badger activity such as paths, footprints, hairs, latrines and feeding signs, following guidelines⁴. In addition, an assessment was made of the likely value of the habitats within the survey area as foraging habitats for badgers. Adjacent areas of Cowplain School were also surveyed.
- 2.3.4 Any badger sett(s) identified during the survey would be recorded as the number of disused, partially-used and well-used holes. This information would be subsequently used to assign the sett to one of four standard categories (main, annexe, subsidiary and outlying) as used in the National Badger Survey.

Limitations to badger survey

- 2.3.5 The survey did not look at adjacent land outside Cowplain School, being private gardens of adjacent properties, or in developed areas of Hart Plain Infant's school. An absence of badger activity evidence suggested that this limitation is not a significant one. There were no other significant limitations to the survey.

2.4 Preliminary bat roost assessment methodology: Trees

Rationale

- 2.4.1 Bats are European Protected Species. Many roosts are within trees, and the protection given to roosts means that their presence or absence in trees on the proposed development site needs to be understood.

Methodology

- 2.4.2 The standard Preliminary Ground Level Roost Assessment (PRA) methodology for trees⁵ was followed. This aims to determine the actual or potential presence of bats, by inspecting for potential roost features from the ground, and determines any need for further survey and/or mitigation.
- 2.4.3 Trees within the proposed development area were inspected for the presence of features which may be suitable for use by roosting bats, with particular attention given to any older and mature trees. In particular, the line of trees alongside the hedgerow on the western care home site was inspected carefully. A thorough inspection was undertaken, looking for features and signs indicative of bat roosts:
- woodpecker holes;
 - rot holes;
 - hazard beams;
 - other vertical or horizontal cracks and splits, such as frost cracks in stems or branches;
 - partially detached bark plates;
 - knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar;

⁴ Harris S, Cresswell P & Jefferies D (1989) *Surveying Badgers*. Mammal Society, London.

⁵ Collins, J. (ed.) (2016) *Bat surveys for professional ecologists: good practice guidelines*, Third Edition, Bat Conservation Trust.

- artificial holes (such as cavities that have developed from flush cuts) or cavities created by branches tearing out from parent stems;
- cankers, caused by localised bark death, in which cavities have developed;
- other hollows or cavities including butt-rots at the base of the tree;
- potential cavities in the fork between double trunks ("compression forks"), where the wood has grown around sections of bark ("included bark");
- gaps between overlapping stems or branches;
- partially detached ivy with stem diameters in excess of 50mm;
- bat, bird or dormouse boxes.

2.4.4 Signs of a bat roost, in addition to the visible presence of bats, include:

- bat droppings in or around a potential roost feature (PRF);
- odour coming from a PRF;
- audible bat squeaks at dusk or during the day in warm weather;
- staining below the PRF.

2.4.5 Some signs, such as staining, odour or squeaking, may originate from other species, and staining may arise from wet rot which would preclude bat use. Bats or bat droppings are the only conclusive evidence of bat use, but many bat roosts have no external signs.

2.4.6 Close-focusing binoculars (Pentax Papilio 8.5 x 21) were used to inspect trees from the ground to the canopy, from all sides, and from close to the trunk and further away. A high-power torch (Cluson Clulite) was used to inspect cavities and shaded areas of the branch structure. Where there were potential roost features within 1.5m of ground level, these were inspected using an endoscope (Ridgid CA-300) to identify the bats themselves, droppings, or other signs.

2.4.7 The survey of trees included an assessment of their potential to support bat roosts using the following categories.

Category	Description
Negligible	Trees with no potential to support bats
Low	A tree of sufficient size and age to contain potential roost features, but with none seen from the ground, or where the features seen have only very limited potential to support bats.
Moderate	A tree with one or more potential roost features, that could be used by bats due to their size, shelter, protection, condition and surrounding habitat, but are unlikely to support a roost of high conservation status.
High	A tree with one or more potential roost sites, that are obviously suitable for use by larger numbers of bats on a more regular basis, and potentially for longer periods of time, due to their size, shelter, protection, condition and surrounding habitat.
Confirmed roost	Trees with evidence of bats present.
Unknown	Unable to survey fully, for example because part of the tree is inaccessible.

2.4.8 The assessment was undertaken on 29th July 2021 and the weather conditions were hot and dry.

Limitations to preliminary bat roost assessment: trees

2.4.9 There were no significant limitations to the survey.

2.5 Assessment methodology

2.5.1 The assessment was undertaken in accordance with the Chartered Institute of Ecology and Environmental Management's Professional Guidance Series⁶.

2.5.2 More details of the assessment methodology are provided in Appendix 2, but, in summary, the impact assessment process involves:

- identifying and characterising impacts;
- incorporating measures to avoid and mitigate (reduce) these impacts;

⁶ CIEEM (2016) *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal*, Second Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

- assessing the significance of any residual effects after mitigation;
- identifying appropriate compensation measures to offset significant residual effects; and
- identifying opportunities for ecological enhancement.

2.5.3 The hierarchical process of avoiding, mitigating and compensating for ecological impacts is explained further below.

2.5.4 In Ecological Impact Assessment (EcIA) it is only essential to assess and report significant *residual* effects (i.e. those that remain after mitigation measures have been taken into account). However, it is considered good practice for the EcIA to make clear both the potential significant effects without mitigation and the residual significant effects following mitigation, particularly where the mitigation proposed is experimental, unproven or controversial. Alternatively, it should demonstrate the importance of securing the measures proposed through planning conditions or obligations.

2.5.5 Assessment of the potential impacts of the proposed development takes into account both on-site impacts and those that may occur to adjacent and more distant ecological features. Impacts can be positive or negative. Negative impacts can include:

- direct loss of wildlife habitats;
- fragmentation and isolation of habitats through loss of connectivity;
- disturbance to species from noise, light or other visual stimuli;
- changes to key habitat features; and
- changes to the local hydrology, water quality, nutrient status and/or air quality.

2.5.6 Negative and positive impacts on ecological features are characterised based on predicted changes as a result of the proposed activities. In order to characterise the impacts on each feature, the following parameters are considered:

- the magnitude of the impact;
- the spatial extent over which the impact would occur;
- the temporal duration of the impact and whether it relates to the construction or operational phase of the development;
- the timing and frequency of the impact; and
- whether the impact is reversible and over what time frame.

2.5.7 Both short-term (i.e. impacts occurring during the site clearance and construction phases) and long-term impacts are considered.

Conservation status

2.5.8 The extent to which the proposed development may have an effect upon ecological features should be determined in the light of its expected influence on the integrity of the site or ecosystem. The integrity of protected sites is considered specifically in the light of the site's conservation objectives. Beyond the boundaries of designated sites with specific nature conservation designations and clear conservation objectives, the concept of 'conservation status' is used. Conservation status should be evaluated for a study area at a defined level of ecological value. The extent of the area used in the assessment relates to the geographical level at which the feature is considered important.

2.5.9 For habitats, conservation status is determined by the sum of the influences acting on the habitats and their typical species that may affect their long-term distribution, structure and functions, as well as the long-term survival of its typical species within a given geographical area. For species, conservation status is determined by the sum of influences acting on the species concerned and inter-relationships that may affect the long-term distribution and abundance of its populations within a given geographical area.

Confidence in predictions

2.5.10 It is important to consider the likelihood that a change or activity will occur as predicted and also the degree of confidence in the assessment of the impact on ecological structure and function.

- **Certain** probability estimated at above 95%

- **Probable** probability estimated above 50% but below 95%
- **Possible** probability estimated above 5% but below 50%
- **Unlikely** probability estimated as less than 5%

Cumulative impacts

- 2.5.11 Consideration is also given to the potential for the development proposal to give rise to significant negative impact in combination with other proposed developments in the local area.

Overall assessment

- 2.5.12 An overall assessment of value and impact is provided. This is based upon the highest level or value of any of the features or species present, or likely to be present on the site. Similarly, the overall assessment of impact is the impact of greatest significance.

2.6 Mitigation hierarchy

- 2.6.1 The following principles underpin EcIA and have been followed, where applicable, in this assessment.

- **Avoidance** Seek options that avoid harm to ecological features (for example, by locating the proposed development on an alternative site or safeguarding on-site features within the site layout design).
- **Mitigation** Adverse effects should be avoided or minimised through mitigation measures, either through the design of the project or subsequent measures that can be guaranteed – for example, through a condition or planning obligation.
- **Compensation** Where there are significant residual adverse ecological effects despite the mitigation proposed, these should be offset by appropriate compensatory measures.
- **Enhancement** Seek to provide net benefits for biodiversity over and above requirements for avoidance, mitigation or compensation.

3 Results

3.1 Desk study results

European sites

- 3.1.1 The following European sites (Special Protection Area, Special Area of Conservation, and Ramsar sites which are treated as if they were European sites) were identified within the 6km search area and are detailed within the table below.

Site	Distance from development site (approx.)	Direction	Key habitat/features of interest
Solent Maritime Special Area of Conservation (SAC)	5km	S	A major estuarine system with numerous coastal habitats and species of great importance.
Chichester and Langstone Harbours Special Protection Area (SPA)	5km	S	Both Chichester and Langstone Harbours contain extensive intertidal mudflats and sandflats with areas of seagrass beds, saltmarsh, shallow coastal waters, coastal lagoons, coastal grazing marsh and shingle ridges and islands. These habitats support internationally and nationally important numbers of overwintering and breeding bird species.
Chichester and Langstone Harbours Ramsar	5km	S	Two large estuarine basins include intertidal mudflats, saltmarsh, sand and shingle spits and sand dunes. There are internationally and nationally important bird populations and assemblages.

- 3.1.2 European site locations are shown in Appendix 5, which is an extract from the policies map book of the Havant draft Local Plan 2036.

Sites of national importance

- 3.1.3 There were no sites of national importance in the 2km search area.

Sites of local importance

- 3.1.4 The following Sites of Importance to Nature Conservation were identified within the 1km search area and are detailed within the table below.

Site	Distance from development site (approx.)	Direction	Key habitat/features of interest
Wecock Common	800m	N	Pasture woodland and wooded commons
Park Wood, Havant	225m	S	Ancient semi-natural woodland.
Longwood (Idlewood)	950m	NE	Ancient semi-natural woodland.
The Queen's Inclosure	350m	E	Ancient replanted woodland

- 3.1.5 Non-statutory site locations relative to the proposed development site are shown in Appendix 6 (information from HBIC).

- 3.1.6 No Priority Habitats have been identified by HBIC on or in the vicinity of the proposed developments. The playing field was identified by HBIC as 'unidentified habitat' (Appendix 7).

Protected, rare and/or priority species

- 3.1.7 A number of species records were returned for the search area. Records for protected, rare and/or priority species from within the search area are summarised below. In accordance with BS42020 and advice from most Local Biological Record Centres, species lists are not appended but are available to the Local Planning Authority on request.

Veteran trees

- 3.1.8 No veteran tree records were returned.

Plants

- 3.1.9 Several protected, rare and/or priority plant species records were returned. Some were from 1km grid square resolution, such as box *Buxus sempervirens* from a 1km square in 'Waterloooville'. Others, with a more precise grid reference were from locally designated sites, such as *Fragaria vesca* wild strawberry, from Park Wood. None were identifiable from Cowplain School.

Invertebrates

- 3.1.10 Several protected, rare and/or priority invertebrate species records were returned, including beetles, moths, butterflies and dragonflies. Some were from 1km grid square resolution, such as dotted clay *Xestia baja* from a 1km square called 'SU6809'. Others, with a more precise grid reference were from locally designated sites, such as common darter *Sympetrum striolatum*, from Park Wood. Stag beetle had been recorded in the area. None were identifiable from Cowplain School.

Amphibians including great crested newts

- 3.1.11 There was one record of common toad and no records of great crested newts or other amphibians in the search area.

- 3.1.12 A search on MAGIC maps for great crested newts (GCN) *Triturus cristatus* survey licence returns and mitigation licenses⁷ revealed that none were found within a 1km radius of the site boundary. Licence returns on MAGIC Maps for great crested newts showed that great crested newts were present over 1.5km north of the site with urban development completely occupying the land in between.

Reptiles

- 3.1.13 There two records of slow worm within the study area, but no other records.

Birds

- 3.1.14 There were many bird records for the area, many recorded to 1km grid square resolution only. Typically, they fell into four groups.

- Rare or interesting birds seen flying past, such as a marsh harrier and a snipe
- Common urban birds, such as black-headed gull, dunnock, starling, song thrush and house sparrow
- Birds of the wider countryside outside urban areas, such as lapwing, linnet, brambling and hobby
- Wetland birds, recorded presumably on migration to / from the estuaries, such as great northern diver, curlew, oystercatcher and whimbrel.

- 3.1.15 There were no bird records for the site itself.

Dormouse

- 3.1.16 No dormouse *Muscardinus avellanarius* records were returned.

⁷ MAGIC: <https://magic.defra.gov.uk/MagicMap.aspx>. [Date Accessed 13th September 2021]

Terrestrial Mammals including badgers

- 3.1.17 Records of hedgehog *Erinaceus europaeus* were returned.

Aquatic Mammals including water voles and otters

- 3.1.18 No protected, rare and/or priority aquatic mammal species records were returned.

Bats

- 3.1.19 Records of *Myotis bat*, brown long-eared *Plecotus auritus*, common pipistrelle *Pipistrellus pipistrellus*, noctule *Nyctalus noctula*, serotine *Eptesicus serotinus*, and soprano pipistrelle *Pipistrellus pygmaeus* were returned. Many were from bat detector records. Others were from roosts, including serotine, noctule, unspecified pipistrelle species, common pipistrelle, soprano pipistrelle and brown long-eared bat.
- 3.1.20 A search on MAGIC maps for bat mitigation licenses⁸ revealed that common pipistrelle, soprano pipistrelle, brown long-eared bat licences had been issued within the local area.
- 3.1.21 Hampshire Bat Group reports that '*The Havant and Waterlooville area is a remarkable hotspot for bat diversity, with 15 of the UK's 17 breeding species recorded in recent years. The Havant Borough Council is proposing to introduce a Bechstein's bat planning protocol. I'm keen to emphasise to developers and planners that it is not just Bechstein's that we have in this area, but alcahloe, Brandt's and western barbastelle [rare species] too. We even have a greater horseshoe record now.*' This emphasises the great importance of the Cowplain School area for bats, especially areas of dark habitat where bats can forage.

3.2 Phase 1 habitat survey results

- 3.2.1 Eight Phase 1 habitat categories were identified during the Phase 1 habitat survey and are shown on Figure 01 and Figure 02 for the western and eastern plots respectively. Each habitat is described below.

Management, setting and green infrastructure

- 3.2.2 Cowplain School is situated on Hart Plain Avenue, Cowplain, within an urban area which grew up around the old A3 London Road. Cowplain School has a number of buildings in a campus type setting, with large playing fields. It is the large playing fields which contribute most to the green infrastructure of the area. In the south of the school site, at some distance from the development areas, is an area of woodland, species-rich grassland and scrub.
- 3.2.3 A small part of the school is proposed for development in two separate areas; the remainder of the school will continue to operate. The two development areas are on the site's northern boundary, adjacent to Hart Plain Avenue, and comprise a small part of the playing field, and a disused hard-surfaced play area respectively.

A3.1 Scattered broadleaved trees

- 3.2.4 A line of scattered early mature trees were present alongside the hedged northern boundary of the western site, planted in the late 20th century. Species included horse chestnut *Aesculus hippocastanum*, poplar *Populus* sp., ash *Fraxinus excelsior* and oak *Quercus robur*. Ash trees were showing signs of dieback, probably due to *Chalara* disease. An accompanying tree survey report by the Landscape Partnership (2021) describes trees in more detail.

A3.1 Scattered broadleaved trees

- 3.2.5 A line of Leyland cypress *Cupressus leylandii* was adjacent to the eastern site.

C3.1 tall ruderal

- 3.2.6 A small triangle of land I the western site contained compacted bare ground which was regenerating with bristly ox-tongue *Helminthotheca echioides*, redshank *Persicaria maculosa*,

⁸ MAGIC: <https://magic.defra.gov.uk/MagicMap.aspx>. [Date Accessed 14th September 2021]

groundsel *Senecio vulgaris*, American willowherb *Epilobium ciliatum*, and creeping cinquefoil *Potentilla reptans*.

J1.2 Amenity grassland

- 3.2.7 Much of the western proposed development site was school playing fields. Grass was frequently mown to provide a species-poor sports turf. Weeds were few and included creeping buttercup *Ranunculus repens* and white clover *Trifolium repens*.

J2.1.2 Native species poor hedge, intact

- 3.2.8 The hedge along the roadside boundary, for the western site, comprised predominantly of hawthorn *Crataegus monogyna* with small amounts of field maple *Acer campestre*, blackthorn *Prunus spinosa*, ash *Fraxinus excelsior* and bramble *Rubus fruticosus* agg. It was kept neatly trimmed.
- 3.2.9 The hedge along the roadside boundary, for the eastern site, was a single-species beech hedge which appeared contemporary with the school buildings. There were some gaps in the hedge, and hedge bindweed *Calystegia sepium* was flowering in the hedge at the time of visit.

J2.4 Fence

- 3.2.10 A wire fence ran alongside the roadside hedges. This is shown on Figure 02 for the eastern site but the scale of Figure 01 meant that it was not shown separately for the western site. A chain link fence bounded the former hard-surfaced sports court of the eastern site. A wooden close-boarded fence divided the western site from an adjacent residential property.

J4 Hardstanding

- 3.2.11 The eastern site consisted of tarmac once forming a sports pitch.

3.2.12 J4 bare ground

- 3.2.13 The western site included a sand pit forming part of the long jump facility.

Field signs/sightings

- 3.2.14 A veteran ash tree stump (Target Note 1 on Figure 02) was recorded in bare ground in the western site.

3.3 Badger survey results

- 3.3.1 No signs of badger were seen in the proposed development site. If there had been a nearby sett on adjacent land, tracks, dung pits etc would probably have been visible within the site. It appeared that badgers rarely or never visit the site.

3.4 Preliminary bat roost assessment results: Trees

- 3.4.1 No trees were recorded as having more than Negligible bat roost potential.

4 Evaluation of conservation status and impact assessment

4.1 Assessment rationale

- 4.1.1 The assessment is based on the ecological data presented within this report. Future changes in the wildlife present on site are beyond the scope of this report, unless specifically stated.

4.2 Evaluation of conservation status and assessment of designated sites

- 4.2.1 The ecological value of the site is considered below and evaluated using the methodology set out in Appendix 2 and in accordance with species legislation and planning policy, as outlined in Appendix 1.

European Sites – cumulative recreational impact

- 4.2.2 The development in isolation would have no impact on Chichester and Langstone Harbours SPA or other Solent European sites. However, the housing growth in Havant and other Boroughs / Districts alongside the Solent will result in an increase of recreational impacts upon the Chichester and Langstone Harbour SPA and other Solent European sites. Increased impacts will result from disturbance to estuary birds from dog walkers and other walkers, and other recreational activities. When wintering birds are disturbed they lose energy from the unplanned flight, and they move to less optimal areas for feeding. This compromises their survival, ability to migrate to breeding grounds or ability to successfully breed after migration. The cumulative impact of housing growth is therefore a harm to the SPA.
- 4.2.3 Mitigation for housing growth is to provide an increased wardening service for the SPA, to manage recreational behaviour and prevent any increase in disturbance impacts from current levels. A financial contribution is required from developers, which for the 4-bedroom houses is currently £801 per house. This cost increases with inflation in April each year. No payment is necessary for a residential nursing home for people who are unable to independently leave that accommodation and which does not provide residents parking or allow pets.
- 4.2.4 The Solent Recreation Mitigation Strategy which gives details about this scheme, together with the current contribution, is found at <https://birdaware.org/solent/about-us/our-strategy/>. Havant Borough Council adds on a 5% monitoring payment and a £23 admin fee to the cost per house⁹. The money is paid via a S106 agreement or a simple pro-forma Unilateral Undertaking.
- 4.2.5 The payment of the mitigation money results in the recreational impact of the proposed development upon European sites being assessed as **Neutral**.

European sites – nutrient neutrality

- 4.2.6 Chichester and Langstone Harbour SPA, and other Solent European sites are currently being harmed from an excess of nitrogen in the form of nitrates in the water. The nitrates are a plant nutrient. There is a consequent dense growth of algal mats which are smothering the mudflats, reducing the diversity of mudflat invertebrates and obstructing the feeding of estuary birds. The nitrates come from agriculture other habitats, and from treated sewage discharges. Havant Borough Council, similarly to other LPAs along the Hampshire coast, require that developments are 'nutrient neutral', i.e there is no net increase of nitrates entering the Solent via treated sewage. Havant Borough Council's website¹⁰ gives great detail on this issue and how it can be resolved by developers.
- 4.2.7 The net outflow of nutrient nitrogen from the development site is a balance between the amount of sewage produced from the houses and care home, and the reduction in nitrogen from the habitats which would be replaced by the development. There is a standard calculator available on the Havant website which is used to calculate net change. If there is a net increase in nutrient nitrogen output from a development, the mitigation is to design residential housing to meet a target of no more than 110l/d water use, and to reduce nitrogen inputs to the estuary from off site. Reduction of nitrogen inputs usually involves a payment to Havant Borough Council to take

⁹ <https://www.havant.gov.uk/unilateral-undertaking-solent-recreation-mitigation-strategy>

¹⁰ <https://www.havant.gov.uk/nutrient-neutrality-what-developers-need-know>

some of its own farmland out of production, thus removing a source of nitrogen. Alternatively, the developer could source its own supply of farmland to take out of production and remove a source of nitrogen. The loss of remaining playing fields to hard-surface sports pitches, if linked to the built development, will assist with calculations because the playing fields will no longer be considered to act as a source of nitrogen; fertilisation will cease.

- 4.2.8 It is understood that nutrient neutrality calculations are provided in a separate report. Post-application the LPA will check the mitigation cost using its own farmland and provide a S106 Unilateral Undertaking to secure the financial payment. The current cost is £1241 per kg of Nitrogen per year, plus an admin fee¹¹, subject to annual inflation. If this procedure is carried out there will be a Neutral impact on Chichester and Langstone Harbours SPA and other Solent European sites.

Sites of national importance

- 4.2.9 Sites of Special Scientific Interest (SSSI) Impact Risk Zones are used to assess the need for the LPA to consult Natural England on planning applications at varying distances from SSSIs. In accordance with the SSSI Impact Risk Zones User Guidance¹² consultation with Natural England would be required for the proposed development site for:

- Airports, helipads and other aviation proposals
- Residential development of 500 units or more.
- Any residential development of 500 or more houses outside existing settlements/urban areas
- Livestock & poultry units with floorspace > 500m² slurry lagoons > 750m² & manure stores > 3500t
- General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion
- Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water such as a beck or stream
- For new residential development in this area financial contributions are required to mitigate increased recreational disturbance on coastal SPAs and Ramsar Sites. Check with Local Planning Authority
- SOLENT NUTRIENT IMPACT AREA. For new development with overnight accommodation Reg 63 of the Conservation of Habitats and Species Regulations 2017 must be applied. LPA to refer to Natural England's Solent Nutrient Neutrality Advice Note June 2019

- 4.2.10 The proposed development falls within two of the categories with respect to European site issues discussed above, and so the LPA is required to consult Natural England. There is no requirement to consult with respect to other SSSI issues.

- 4.2.11 The impact of the proposed development upon sites of national importance other than those forming components of Solent European sites is considered to be **Neutral**, due to the distance of the proposed development from the designated sites, the reasons for the sites' designation and the character of the development within its local context.

Sites of local importance

- 4.2.12 The impact of the proposed development upon sites of local importance is considered to be **Neutral**, due to the distance of the proposed development from the locally important sites, the reasons for the sites' designation and the character of the development within its local context.

¹¹ <https://www.havant.gov.uk/nutrient-neutrality-what-developers-need-know>

¹² Magic Maps www.magic.defra.gov.uk/MagicMap.aspx

4.3 Evaluation of conservation status and assessment of habitats and green infrastructure

Habitats

- 4.3.1 Habitats of relatively higher are the hedges, and scattered broadleaved trees. These are valued at the **Parish/Neighbourhood** scale. The playing field and hard surfaces within the proposed development site are valued at the **Site only** scale.
- 4.3.2 Impacts of the development upon the site habitats are considered to be **Minor Adverse**. Mitigation would include the planting of replacement hedges and trees.

Green infrastructure

- 4.3.3 The site provides some habitat linkage along Hart Plain Avenue as well as being a small part of a large playing field. The care home garden will provide increased green infrastructure opportunities for wildlife and the gardens of the houses will replace tarmac hardstanding. The contribution of the site towards green infrastructure for wildlife is **Neutral** to **Minor Beneficial**.

4.4 Evaluation of conservation status and assessment of species

Veteran trees

- 4.4.1 There are no veteran trees present on the site and the value of the proposed development site for these is therefore **Negligible**. The impact of the proposed development upon veteran trees is **Neutral**.

Plants

- 4.4.2 The character of the habitats recorded at the site and the plant records returned for the local area, suggests that the site has no potential to support protected, rare and/or priority plants. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Invertebrates

- 4.4.3 The character of the habitats recorded at the site and the invertebrate records returned for the local area, suggests that the site has potential to support stag beetle in an old ash tree stump. The female beetle lays her eggs just below ground level into dead wood, and the larvae live in the dead wood for three to seven years. It is recommended that this stump is retained, protected during the development, and incorporated into the garden of the respective house. The landscape design would need to include some ornamental planting around the stump to provide it with an incentive for householder acceptance. Fern planting to make a miniature 'stumpery' is currently in vogue¹³ and would be appropriate. The value of the proposed development site for this group is **Parish/Neighbourhood** scale and the impact of the proposed development with this mitigation in place would be **Neutral**.

Amphibians including great crested newts

- 4.4.4 The absence of ponds on site, and absence of ponds within 250m of the site, suggests that there is no reasonable likelihood of great crested newts being present. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Reptiles

- 4.4.5 The character of the habitats recorded at the site and the reptile records returned for the local area, suggests that the site has no potential to support protected, rare and/or priority reptiles. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

¹³ For example, see <https://www.highgrovegardens.com/pages/the-stumpery>. Similar features exist at Kew gardens and National Trust properties.

Birds

Breeding birds

- 4.4.6 The site is likely to be used by small numbers of common breeding bird species, both for nesting and foraging, with the hedge and broadleaved trees being of greatest value in this respect. It is considered that the value of the site to breeding birds is at the **Site only** scale. There would be a minor loss of nesting habitat due to loss of hedgerow and trees to form the access, but the care home garden and residential gardens would more than mitigate for the losses. The unmitigated impact is considered to be **Minor Beneficial**.
- 4.4.7 Destruction of birds' nests whilst they are in use would be an offence. To avoid an offence, vegetation removal should take place outside the bird nesting season or vegetation should be inspected and only removed if no bird nest is found to be present.

Wintering birds

- 4.4.8 There are no habitats present on site which might support significant populations of wintering birds, although the site does offer some limited foraging potential for small numbers of common species. The site is considered to be of **Negligible** value for this group.

Dormice

- 4.4.9 There were no dormouse records returned for the site, and the habitats present offer an inadequate resource for this species.
- 4.4.10 The site is therefore considered to be of **Negligible** value for this species and the impact of the proposed development is **Neutral**.

Aquatic mammals including water voles and otters

- 4.4.11 The character of the habitats recorded at the site and the mammal records returned for the local area, suggests that the site has no potential to support protected, rare and/or priority aquatic mammals. The value of the proposed development site for this group is **Negligible** and the impact of the proposed development is **Neutral**.

Terrestrial mammals including badgers

- 4.4.12 There were no badger records returned for the local area, and the habitats present on site are unsuitable for sett construction or foraging activity. The site is therefore considered to be of **Negligible** value for this species and the impact of the proposed development is **Neutral**.
- 4.4.13 Hedgehog may occasionally forage along the hedgerow but its size and character do not appear to make it suitable for nesting. The site is therefore considered to be of **Negligible** value for this species and the impact of the proposed development is **Neutral**.

Bats

Roosting potential

- 4.4.14 No trees were considered to have bat roost potential and so the impact of development is considered to be **Neutral**.

Foraging/commuting potential

- 4.4.15 Based on the evidence gained during the Phase 1 survey, the site is likely to be predominantly used for commuting and foraging purposes by small numbers of relatively common and widespread bat species. Street lighting is likely to restrict foraging along the hedgerow to the more light-tolerant urban species particularly pipistrelles. The value of the site to foraging and commuting bats is up to the **Parish/Neighbourhood** scale. The impact, considering loss of hedgerow sections to access but an increase in vegetation suitable for foraging, is likely to be **Minor Beneficial** for light-tolerant bat species.

4.5 Cumulative impacts

- 4.5.1 There are no known cumulative impacts in addition to those on European sites as discussed above.

5 Mitigation and avoidance measures

5.1 Avoidance measures

5.1.1 The following impact avoidance measures have been identified and will be delivered.

- Retention of boundary hedge and scattered trees alongside the hedge, except where required for provision of new accesses
- Relocation of a feature of value to stag beetles, namely an old ash stump and associated root ball, along with soil, from the residential site into the nature area of the care home.

5.2 Proposed mitigation for known impacts

5.2.1 No mitigation is needed for the following ecological features, because no significant impacts have been identified

- Locally important sites
- Habitats
- Great crested newts and other amphibians
- Reptiles
- Badgers and other terrestrial mammals
- Aquatic mammals – water vole and otter
- Bats

5.2.2 The following mitigation is required to reduce the impacts of the scheme to within acceptable limits.

European sites and nationally important designated sites

5.2.3 A payment is required to the Solent Recreation Mitigation Strategy, of £801 per house for the four houses. No payment is needed for the care home because the residents would not be able to have a recreational impact on the estuaries. A pro-forma Unilateral Undertaking is provided by Havant Borough Council.

5.2.4 Following calculations of nutrient impact, a payment is required to the Havant Borough Council's nutrient neutrality mitigation scheme. Alternatively, the client may source its own farmland for a nutrient reduction project.

Habitats

- Ensure that no works come closer than Root Protection Zones of retained trees and hedge.
- Garden planting should constitute at least 40% by area of species of known value to wildlife (which might include native species), such as fruiting / berrying species and species known to provide a good nectar source. All ornamental planting should be structurally diverse, with tree, shrub and ground layers as appropriate, and areas of dense planting as well as more open areas.
- A new native hedgerow or hedgerows should be planted, at least 25% longer than that length lost to accesses.

Breeding birds

- Destruction of birds' nests whilst they are in use would be an offence. To avoid an offence, vegetation removal should take place outside the bird nesting season or vegetation should be inspected and only removed if no bird nest is found to be present.

5.3 Compensation for ecological impacts

5.3.1 No compensatory habitat creation or management is proposed.

5.4 Species licensing

5.4.1 No species licence is necessary.

6 Enhancement measures

6.1 Ecological enhancement

6.1.1 Ecological enhancement aims to improve the quality of the site and the immediate vicinity for native flora and fauna. Such enhancements can also provide aesthetic appeal and can add value to the proposed development.

6.1.2 Enhancement opportunities specific to the development proposals for this site are provided below. It is not anticipated that all of these options would be utilised. The options are listed in order of priority, with habitat enhancements having most benefit to wildlife. Small-scale enhancements targeted at individual species, whilst valuable, are generally of less overall benefit than habitat enhancement measures.

6.2 Habitat enhancement

6.2.1 Planting includes a high proportion of native species, which support biodiversity significantly better than non-native plants. This is due to the numbers of flowers, fruits, seeds, berries and palatable leaves that are produced by our native species and their different flowering and fruiting times throughout the year. Orchard trees, native hedgerow, and species-rich grassland are all included in the landscape proposals for the site. See Appendix 8 for landscape proposals.

6.3 Small-scale species enhancement measures

6.3.1 Small-scale enhancements to benefit individual species/species groups would include the following.

- Twelve bat boxes (e.g. Vivara, Ibstock, Habibat or similar), suitable for a range of bat species, should be erected on retained trees.
- Twelve bird boxes (e.g. Vivara or similar), suitable for a range of bird species, should be erected on retained trees.
- Creation of hedgehog highways through boundary fences; a gap of 13cm x 13cm should be cut out of the base of boundary fences to allow hedgehogs to move through the site after construction is complete. Alternatively, include in fence design at least two Hedgehog Friendly Gravel Boards¹⁴ or similar.

¹⁴ <https://www.kebur.co.uk/product/hedgehog-concrete-gravel-board/> or https://www.jacksons-fencing.co.uk/product/sc_667610/hedgehog-gravel-board-for-use-with-slotted-posts-1.83m-x-140-x-28mm-incl.1-x-end-packer-1-x-length-packer-jakcured

7 Recommendations

7.1 Recommended conditions

- 7.1.1 It is recommended that the following conditions, based on model conditions in Appendix D of BS42020:2013, are applied to the planning permission.
- 7.1.2 No removal of hedgerows, trees or shrubs shall take place between 1st March and 31st August inclusive, unless a competent ecologist has undertaken a careful, detailed check of vegetation for active birds' nests immediately before the vegetation is cleared and provided written confirmation that no birds will be harmed and/or that there are appropriate measures in place to protect nesting bird interest on site. Any such written confirmation should be submitted to the local planning authority.

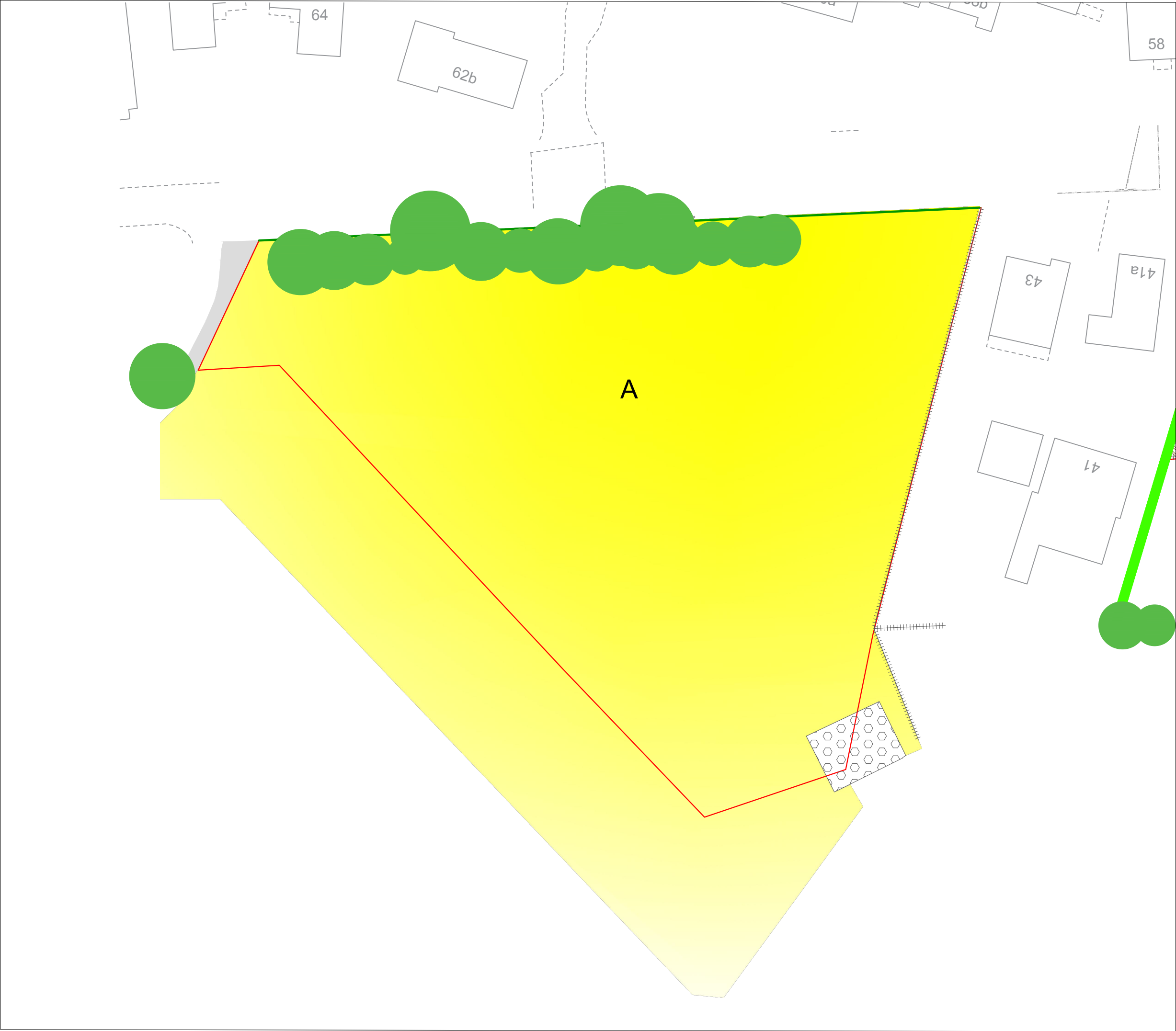
8 Conclusions

- 8.1.1 The purpose of this report was to inform a planning application for the proposed development.
- 8.1.2 The overall value of the site to wildlife is considered to be **Lower** at the **Parish / Neighbourhood scale** with respect to the boundary hedge and scattered trees, and a dead ash tree stump.
- 8.1.3 A summary of assessments of value and the impact of the proposed development without mitigation, and the residual significant effects following mitigation, is provided in the table below.

Feature	Level of value	Scale	Unmitigated impact	Confidence level	Mitigated impact
European Sites	Very High	European	Minor Adverse	Certain	Neutral
Sites of national importance	High	National	Minor Adverse	Certain	Neutral
Sites of local importance	Medium	County	Neutral	Probable	Neutral
Habitats	Lower	Parish	Minor Adverse	Probable	Minor Beneficial
Veteran trees	Negligible	-	-	-	-
Plants	Negligible	-	-	-	-
Invertebrates	Lower	Parish	Minor Adverse	Probable	Neutral
Amphibians including great crested newts	Negligible	-	-	-	-
Reptiles	Negligible	-	-	-	-
Breeding birds	Negligible	Site only	Neutral	Probable	Neutral
Wintering birds	Negligible	-	-	-	-
Dormice	Negligible	-	-	-	-
Aquatic mammals including water voles and otters	Negligible	-	-	-	-
Terrestrial mammals including badgers	Negligible	-	-	-	-
Bats	Lower	Parish	Minor Beneficial	-	Minor Beneficial

- 8.1.4 The overall impact of the proposals is considered to be **Minor Adverse** in the absence of mitigation. The mitigated impact is considered to be **Neutral to Minor Positive**, subject to the outcome of recommended surveys.

Figures



Key:

- A3.1 Broad Leaved Parkland/scattered trees
- J1.2 Cultivated/disturbed land - Amenity grassland (5261m2)
- J2.1.2 Intact hedge - Species poor (100 l/m)
- J2.4 Fence
- J4 Hardstanding (48 m2)
- J4 bare ground (95 m2)

Revision	Number	By	Date
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Project Cowplain School, Waterlooville	Bedford	01234 261315	☐
	Woodbridge	01394 380509	☒
	London	020 3092 4141	☐
	Norwich	01603 230777	☐
Drawing Phase 01 Habitat Survey, West Figure 01	Job No.	B21016	
	Dwg. No.	701	
	Scale	1:500@A3	
	Drawn	RG	
Status Planning	Checked	NS	
	Date	19.08.2021	

Do not scale off drawing. All dimensions & Levels are to be checked on site. Any discrepancies must be reported to the landscape architect immediately.
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North

Appendix 1

Legislative and policy context

There is a number of pieces of legislation, regulations and policies specific to ecology which underpin this assessment. These may be applicable at a National or Local level. References to legislation are given as a summary for information and should not be construed as legal advice.

Birds Directive

The European Community Council Directive on the Conservation of Wild Birds (79/409/EEC), normally known as the Birds Directive, sets out general rules for the conservation of all naturally occurring wild birds, their nests, eggs and habitats. It was superseded by the 'new' Birds Directive (2009/147/EC) which generally updated the previous directive.

Since the end of the Brexit transition period on 31st December 2020 the Birds Directive no longer is part of the UK legal system.

Habitats Directive

The European Community Council Directive on the Conservation of Natural Habitats of Wild Fauna and Flora (92/43/EEC), normally known as the Habitats Directive, aims to protect the European Union's biodiversity. It requires member states to provide strict protection for specified flora and fauna (i.e. European Protected Species) and the registration and regulation of Special Areas of Conservation.

Since the end of the Brexit transition period on 31st December 2020 the Habitats Directive no longer is part of the UK legal system.

Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats and Species Regulations 2017 generally follow the Birds Directive and Habitats Directive but unlike the Directives there is no role for the European Union; the UK Government has taken that role following the end of the Brexit transition period on 31st December 2020. For clarity, the following paragraphs consider the case in England only, with Natural England given as the appropriate nature conservation body. In Wales, the Countryside Council for Wales is the appropriate nature conservation body.

Special Protection Areas and Special Areas of Conservation are defined in the regulations as forming a national network of 'European sites'. The Regulations regulate the management of land within European sites, requiring land managers to have the consent of Natural England before carrying out management. Byelaws may also be made to prevent damaging activities and if necessary land can be compulsorily purchased to achieve satisfactory management.

The Regulations define competent authorities as public bodies or statutory undertakers. Competent authorities are required to make an appropriate assessment of any plan or project they intend to permit or carry out, if the plan or project is likely to have a significant effect upon a European site. The permission may only be given if the plan or project is ascertained to have no adverse effect upon the integrity of the European site. If the competent authority wishes to permit a plan or project despite a negative assessment, imperative reasons of over-riding public interest must be demonstrated, and there should be no alternative to the scheme. The permissions process in that case would involve the Secretary of State. In practice, there will be very few cases where a plan or project is permitted despite a negative assessment. This means that a planning application has to be assessed by the Local Planning Authority, based on information provided by the applicant, and the assessment must either decide that it is likely to have no significant effect on a European site or ascertain that there is no adverse effect upon the integrity of the European site.

Government policy is for Ramsar sites (wetlands of global importance) to be treated as if they were European sites within the planning process.

Appropriate Assessment

Appropriate Assessment is required in certain instances under the Conservation of Habitats and Species Regulations 2017. Regulation 63 says that:

63.— (1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which-

(a) is likely to have a significant effect on a European site or a European offshore marine site

(either alone or in combination with other plans or projects), and
(b) is not directly connected with or necessary to the management of that site,
must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.

(2) A person applying for any such consent, permission or other authorisation must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.

(3) The competent authority must for the purposes of the assessment consult the appropriate nature conservation body and have regard to any representations made by that body within such reasonable time as the authority specifies.

(4) It must also, if it considers it appropriate, take the opinion of the general public, and if it does so, it must take such steps for that purpose as it considers appropriate.

(5) In the light of the conclusions of the assessment, and subject to regulation 64, the competent authority may agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European site or the European offshore marine site (as the case may be).

(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority must have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given.

Regulation 70 provides that Regulations 63 and 64 apply in relation to the grant of planning permission. Regulation 70(3) specifically addresses outline applications, saying that:

"Where [Regulations 63 and 64] apply, outline planning permission must not be granted unless the competent authority is satisfied (whether by reason of the conditions and limitations to which the outline planning permission is to be made subject, or otherwise) that no development likely adversely to affect the integrity of a European site or a European offshore marine site could be carried out under the permission, whether before or after obtaining approval of any reserved matters."

The tests under the Habitats Regulations are very strict. To exclude a likely significant effect under Regulation 63(1)(a) or to exclude an adverse effect on integrity under Regulation 63(5) a competent authority must be certain beyond a reasonable scientific doubt as to the absence of such effects.

Although not provided for under the Habitats Regulations, Government policy under paragraph 176(b) of the NPPF is for Ramsar sites (wetlands of global importance) to be treated as if they were European sites within the planning process.

The competent authority is typically the local planning authority, or an Inspector / Secretary of State for appeals. The appropriate assessment contains the information the council requires for the purposes of its assessment under the Habitat Regulations.

The Habitats Regulations also are applicable to local authority land use plans and policies. If a policy or plan is likely to have a significant effect upon a European site, the permission may only be given if the policy or plan is ascertained to have no adverse effect upon the integrity of the European site. This approach gives rise to a hierarchy of plans each with related appropriate assessments. For example, the appropriate assessment of a Regional Spatial Strategy will affect policies within a Core Strategy, which will then need its own appropriate assessment, and so on.

European Protected Species

European Protected Species of animals are given protection from deliberate capture, injury, killing, disturbance or egg taking/capture. Their breeding sites or resting places are also protected from damage or destruction, which does not have to be deliberate. A number of species are listed as European Protected Species, with those most likely to be considered in planning applications being bats, dormouse, great crested newt and otter. Natural England may give a licence for actions that are otherwise illegal, subject to them being satisfied

on the three tests of no alternative, over-riding public interest, and maintenance of the species in favourable condition.

European Protected Species of plant are also listed and given protection. These species are generally very rare and unlikely to be present in proposed development sites.

Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 has been amended many times, including by the Countryside and Rights of Way Act 2000. It contains provisions for the notification and regulation of Sites of Special Scientific Interest, and for protected species.

The Regulations regulate the management of land within Sites of Special Scientific Interest, requiring land managers to have the consent of Natural England before carrying out management.

All public bodies are defined as 'S28G' bodies, which have a duty to further the nature conservation of Sites of Special Scientific Interest in the undertaking of their functions. In practice, this prevents planning applications being permitted if they would harm Sites of Special Scientific Interest, as it would be a breach of that duty.

The Act makes it an offence intentionally to kill, injure, or take any wild bird, take, damage or destroy the nest of any wild bird, while that nest is in use or being built, or take or destroy an egg of any wild bird. Special penalties are available for offences related to birds listed on Schedule 1, for which there are additional offences of disturbing these birds at their nests, or their dependent young.

The Act makes it an offence intentionally to kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturbing animals occupying such places. Some species have lesser protection under this Act, for example white-clawed crayfish, common frog and toads are only protected from sale, and reptile species, other than smooth snake and sand lizard, are protected from intentional killing or injury, but they are not protected from disturbance and their habitat is not protected. It is also an offence intentionally to pick, uproot or destroy any wild plant listed in Schedule 8.

National Planning Policy Framework

The National Planning Policy Framework (NPPF) dated July 2021 replaces previous Government Policy in relation to nature conservation and planning expressed in the previous version of the NPPF dated February 2019.

Chapter 15 paragraph 174(d) of the NPPF says that the planning system should contribute to and enhance the natural and local environment by minimising impacts on and providing net gains for biodiversity.

Paragraphs 175 and 176 relate to policy for designated sites of biodiversity or landscape importance. Local Plan policies should distinguish between the hierarchy of international, national and locally designated sites and allocate land with the least environmental or amenity value and maintain and enhance networks of habitats and green infrastructure. Further policy is within paragraph 179, where Local Planning Authorities should within their Local Plans aim to protect and enhance biodiversity by:

- Identifying, mapping and safeguarding 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
- Promoting 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.

When determining planning applications Local Planning Authorities should apply the following principles (paragraph 180):

- If significant harm to biodiversity resulting from a development cannot be avoided (through locating it on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused,

- 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;
- 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 reasons and a suitable compensation strategy exists; and
- development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Paragraph 181 adds protection to candidate sites of European or International importance (Special Protection Areas, Special Areas of Conservation and Ramsar sites) and also to those sites identified or required as compensatory measures for adverse effects on habitats sites, potential SPA, possible SAC listed or proposed Ramsar sites.

Paragraph 182 clarifies that the presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a 'habitats' site, i.e. a European site, (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

Government circular 'Biodiversity and Geological Conservation – Statutory Obligations and their Impact Within the Planning System' referenced ODPM 06/2005 has not been replaced and remains valid. It sets out the legislation regarding designated and undesignated sites and protected species and describes how the planning system should take account of that legislation. It does however pre-date the NERC Act 2006 (see below), which includes a level of protection for a further list of habitats and species regardless of whether they are on designated sites or elsewhere.

Natural Environment and Rural Communities (NERC) Act 2006

This Act includes a list of habitats and species of principal importance in England. Local Authorities are required to consider the needs of these habitats and species when making decisions, such as on planning application.

Local Planning Authority's planning policy

The Local Planning Authority will have policies relating to biodiversity conservation.

Species Legislation

The following table provides an overview of legislation with regard to species.

Protected Species	Legislation			
	Wildlife & Countryside Act, 1981	The Conservation of Habitats and Species Regulations, 2017	Natural Environment & Rural Communities (NERC) Act, 2006	Protection of Badgers Act, 1992
Plants (certain 'rare' species)	✓	✓ ¹⁵	✓	
Invertebrates (certain 'rare' species)	✓	✓ ¹⁶	✓	
White-clawed crayfish	✓		✓	
Great crested newt, natterjack toad, pool frog	✓	✓	✓	
Other amphibians	✓ ¹⁷		✓	
Sand lizard, smooth snake	✓	✓ ¹⁸	✓	
Other reptiles	✓ ¹⁹		✓	
Breeding birds	✓	✓	✓	
Wintering birds (certain 'rare' species)	✓	✓	✓	
Bats	✓	✓	✓	
Dormouse	✓	✓	✓	
Water vole	✓		✓	
Otter	✓	✓	✓	
Badger				✓

¹⁵ Nine species present in the UK, with very specialised habitat requirements, are European Protected Species.

¹⁶ Fisher's estuarine moth, large blue butterfly and lesser whirlpool ram's-horn snail are European Protected Species.

¹⁷ The four other native amphibian species (smooth and palmate newts, common frog and common toad) are only protected against trade under this act.

¹⁸ Smooth snake and sand lizard are European Protected Species.

¹⁹ The four other native reptile species (common lizard, slow worm, grass snake and adder) are protected against intentional killing, injury and trade under this act.

Appendix 2

Assessment Methodology: Valuing Ecological Features and Impact Assessment

The three-stage assessment method for determining ecological value is based upon assessment matrices published in the Handbook of Biodiversity Methods²⁰. It has been updated to comply with recent changes to planning policy and legislation. The three-stage process allows the value of ecological sites, habitats and populations, and the magnitude of the impact, to be cross-tabulated to identify impact significance.

Valuing ecological sites, habitats and populations: scale and level of value

Scale	Level of value	Sites, habitats and populations
Greater than national	Very High	Statutory sites designated under international conventions or related national legislation, in particular: - Wetlands of International Importance (Ramsar sites), - Special Areas of Conservation, - Special Protection Areas.
National	High	Statutory sites designated under national legislation, for example: - Sites of Special Scientific Interest (England, Wales, Scotland), - National Nature Reserves (UK). Significant viable areas of habitats, or populations or assemblages of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²¹ of such size and quality as might qualify for SSSI designation. Populations or assemblages of red-listed, rare or legally protected species, as might qualify for SSSI designation, for example: - species of conservation concern, - Red Data Book (RDB) species, - birds of conservation concern (Red List species), - nationally rare and nationally scarce species, - legally protected species.
County	Medium	Statutory sites of lower conservation value designated under national legislation, for example Local Nature Reserves (UK). Non-statutory sites designated under local legislation, for example: - County Wildlife Sites, - Local Wildlife Sites, - Roadside Nature Reserves (protected road verges). Viable areas of habitat or populations of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²² of such size and quality as might qualify for designation at the county level. Other non-designated sites which meet the criteria for designation at this level.

²⁰ Hill, D., Fasham, M., Tucker, G., Shewry, M., Shaw, P. (eds.) (2005) *Handbook of Biodiversity Methods: Survey, Evaluation and Monitoring*, Cambridge University Press.

²¹ Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

²² Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

District/ Borough²³	Lower	Sites meeting criteria for metropolitan designations. Undesignated sites or features not meeting criteria for county designation, but that are considered to enrich appreciably the habitat resource within the local district or borough, for example: • ancient woodland, • diverse, ecological valuable and cohesive hedgerow networks, • significant clusters or groups of ponds, • veteran or ancient trees. Viable areas of habitat or populations of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²⁴ not qualifying for designation at the county level.
Parish	Lower	Areas of habitat considered to enrich appreciably the ecological resource within the context of the local parish. Small areas of habitat or populations of species of principal importance for the conservation of biodiversity in England and Wales (Section 41 species and habitats)²⁵.
Site only	Negligible	Ecological feature or resource not meeting any of the above criteria.

Note: there is much overlap in designations and lists of important species, and many sites, habitats and species appear on several. Where a site, habitat or species has multiple designations or levels of protection, normally the highest level would be the level at which impacts are assessed.

²³ Including metropolitan boroughs.

²⁴ Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

²⁵ Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>. Listed under S41 of the Natural Environment and Rural Communities Act 2006 <http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx>.

Definitions of impact magnitude

Magnitude (negative or positive)	Definition/trigger
Severe	Loss or severe degradation affecting over 75% of a site feature, habitat or population. Adverse change to, or reduced condition of, over 90% of a site feature, habitat or population, for example through disturbance or trampling.
Major	Loss or severe degradation affecting over 25% of a site feature, habitat or population. Adverse change to, or reduced condition of, over 50% of a site feature, habitat or population, for example through disturbance or trampling. For benefits, an impact equivalent in nature conservation terms to a gain of over 50% in a site feature, habitat or population.
Moderate	Loss or severe degradation affecting over 5% of a site feature, habitat or population. Adverse change to, or reduced condition of, over 10% of a site feature, habitat or population, for example through disturbance or trampling. For benefits, an impact equivalent in nature conservation terms to a gain of 10-50% in a site feature, habitat or population
Minor	Loss or severe degradation affecting up to 5% of a site feature, habitat or population. Adverse change to, or reduced condition of, 1-10% of a site feature, habitat or population, for example through disturbance or trampling. For benefits, an impact equivalent in nature conservation terms to a gain of up to 10% in a site feature, habitat or population.
Insignificant	No loss of or severe degradation to a site feature, habitat or population. Adverse change to, or reduced condition of, less than 1% of a site feature, habitat or population. No benefit to a site feature, habitat or population.

Impact significance

Value of site, habitat or population	Magnitude of impact							
	<i>Severe Negative</i>	<i>Major Negative</i>	<i>Moderate Negative</i>	<i>Minor Negative</i>	<i>Insignificant</i>	<i>Minor Positive</i>	<i>Medium Positive</i>	<i>Major Positive</i>
<i>Very High</i>	Severe Adverse	Severe Adverse	Major Adverse	Major Adverse	Neutral*	Major Beneficial	Major Beneficial	Major Beneficial
<i>National (High)</i>	Severe Adverse	Major Adverse	Major Adverse	Moderate Adverse	Neutral*	Moderate Beneficial	Major Beneficial	Major Beneficial
<i>County/Metropolitan (Medium)</i>	Major Adverse	Major Adverse	Moderate Adverse	Moderate Adverse	Neutral	Minor Beneficial	Moderate Beneficial	Major Beneficial
<i>District/Borough (Lower)</i>	Major Adverse	Moderate Adverse	Moderate Adverse	Minor Adverse	Neutral	Minor Beneficial	Moderate Beneficial	Moderate Beneficial
<i>Parish (Lower)</i>	Moderate Adverse	Moderate Adverse	Minor Adverse	Minor Adverse	Neutral	Minor Beneficial	Minor Beneficial	Moderate Beneficial
<i>Minimal/negligible</i>	Neutral	Neutral	Neutral	Neutral	Neutral	Minor Beneficial	Minor Beneficial	Moderate Beneficial

Where the impact significance falls below Minor Adverse, the term 'Neutral' is used.

*In some circumstances, some 'insignificant' impacts might fail legislative or policy tests and the impact would be greater than Neutral.

Appendix 3



Appendix 4

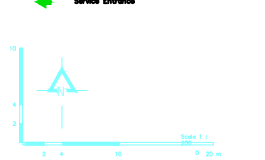
DO NOT SCALE FROM THIS DRAWING
IF IN DOUBT CONSULT THE DESIGNER
THE INFORMATION CONTAINED HEREIN IS FOR INFORMATION ONLY AND IS NOT TO BE USED FOR ANY OTHER PURPOSE
THIS INFORMATION IS CONFIDENTIAL AND SHOULD NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT THE WRITTEN CONSENT OF WR DUNN & CO LTD

Assessment based on a 3m offset from foot and surface water boundaries as indicated on Clear View's survey drawing.
RPA 150m x 200m
5000.0 m² 2000.0 m²
0.00 m² 0.00 m²
0.00 m² 0.00 m²
0.00 m² 0.00 m²

- Proposed railing
- Proposed fence
- Foot Drainage
- Surface Water Drainage

04-01 Tree reference / Boundary / Surface Water Drainage

- RPA
- Existing tree
- Proposed tree
- Proposed low maintenance planting
- Proposed grassed area
- Proposed lawn area
- Proposed block paving
- Proposed paving
- Essential
- Proposed footpath paving
- Main Entrance
- Service Entrance



P01	First	JD	20.05.21
P02	Revised housing layout	JD	20.05.21
P03	Updated core-home layout	JD	27.05.21
P04	Updated layout	EH	28.05.21
P05	Updated layout for	EH	28.05.21
P06	Revised site layout to reflect updated	EH	28.05.21
P07	Revised site layout to reflect updated	EH	28.05.21
P08	Revised site layout to reflect updated	EH	28.05.21
P09	Revised site layout to reflect updated	EH	28.05.21
P10	Revised site layout to reflect updated	EH	28.05.21
P11	Revised site layout to reflect updated	EH	28.05.21
P12	Revised site layout to reflect updated	EH	28.05.21
P13	Revised site layout to reflect updated	EH	28.05.21
REV	IMPROVEMENTS	OWN	DATE

PRELIMINARY
DO NOT SCALE FROM THIS DRAWING. CONTRACTOR MUST VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK OR MAKING ANY SHOP DRAWINGS

wrdunn.

27 FRONT STREET ACMS YORK
YO1 1AA
info@wrdunn.co.uk

CLIENT

PROJECT

Land at Cowplain Community School

Hart Plain Avenue

Watercroule

POB 807

DRAWING TITLE

Proposed Site Plan

SCALE @ A3 DATE DRAWN CHECKED

As indicated 17.05.21 EH JD

DRAWING NUMBER REVISION SITUATION

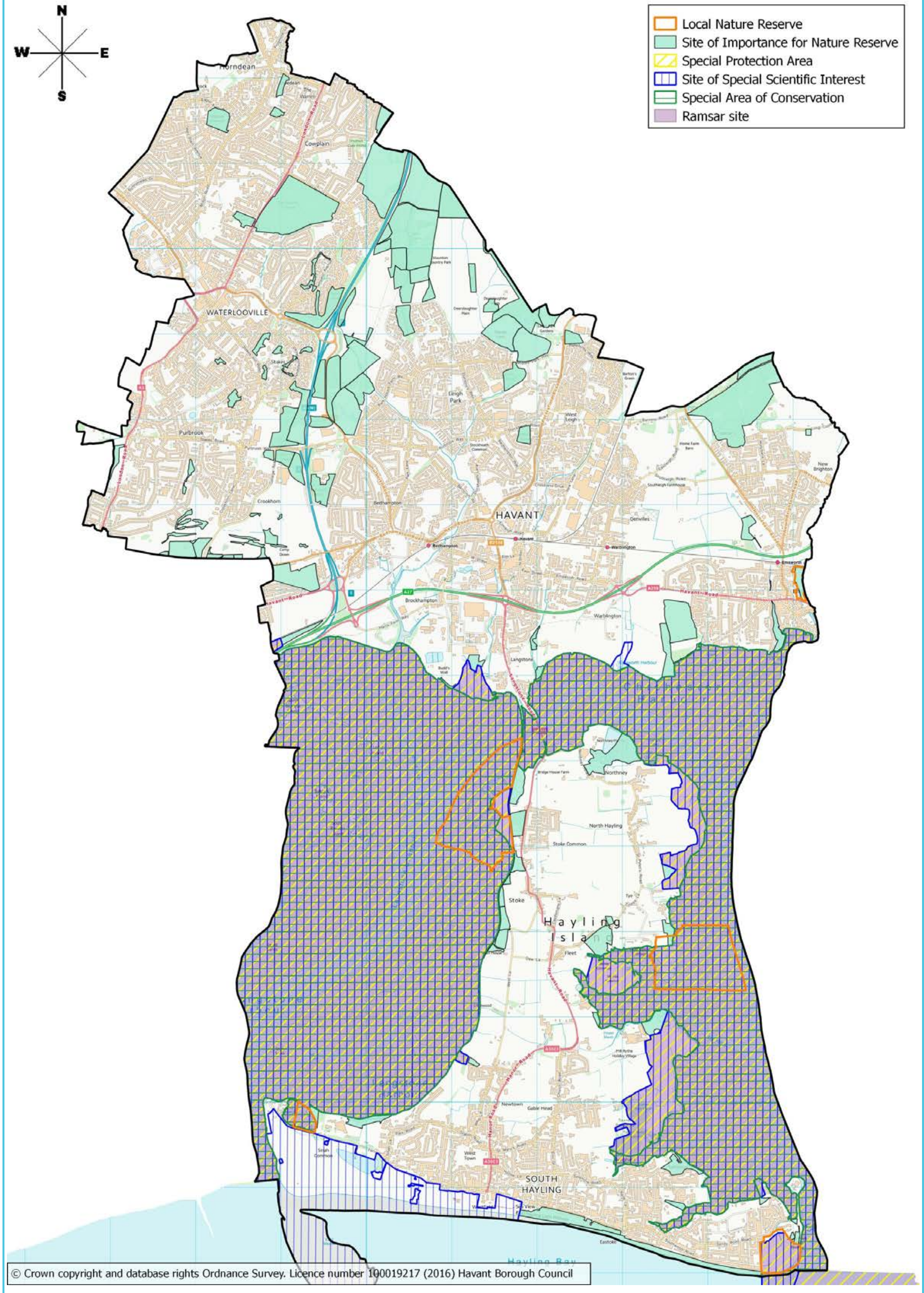
4528-WRD-XX-ZZ-DR-A-0303 S3



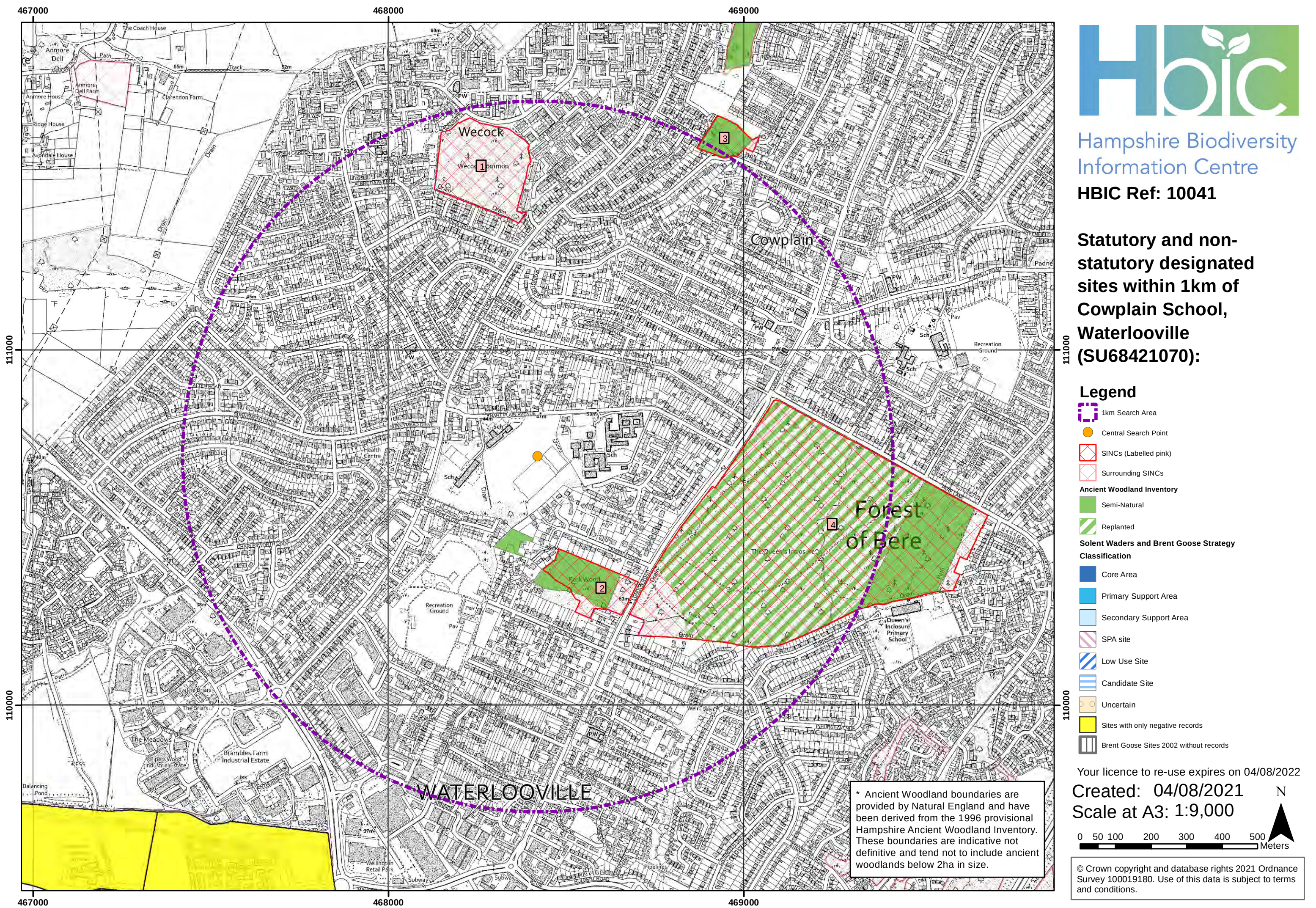
Proposed Site Plan
1
200

Appendix 5

Figure 22: Ecological Conservation

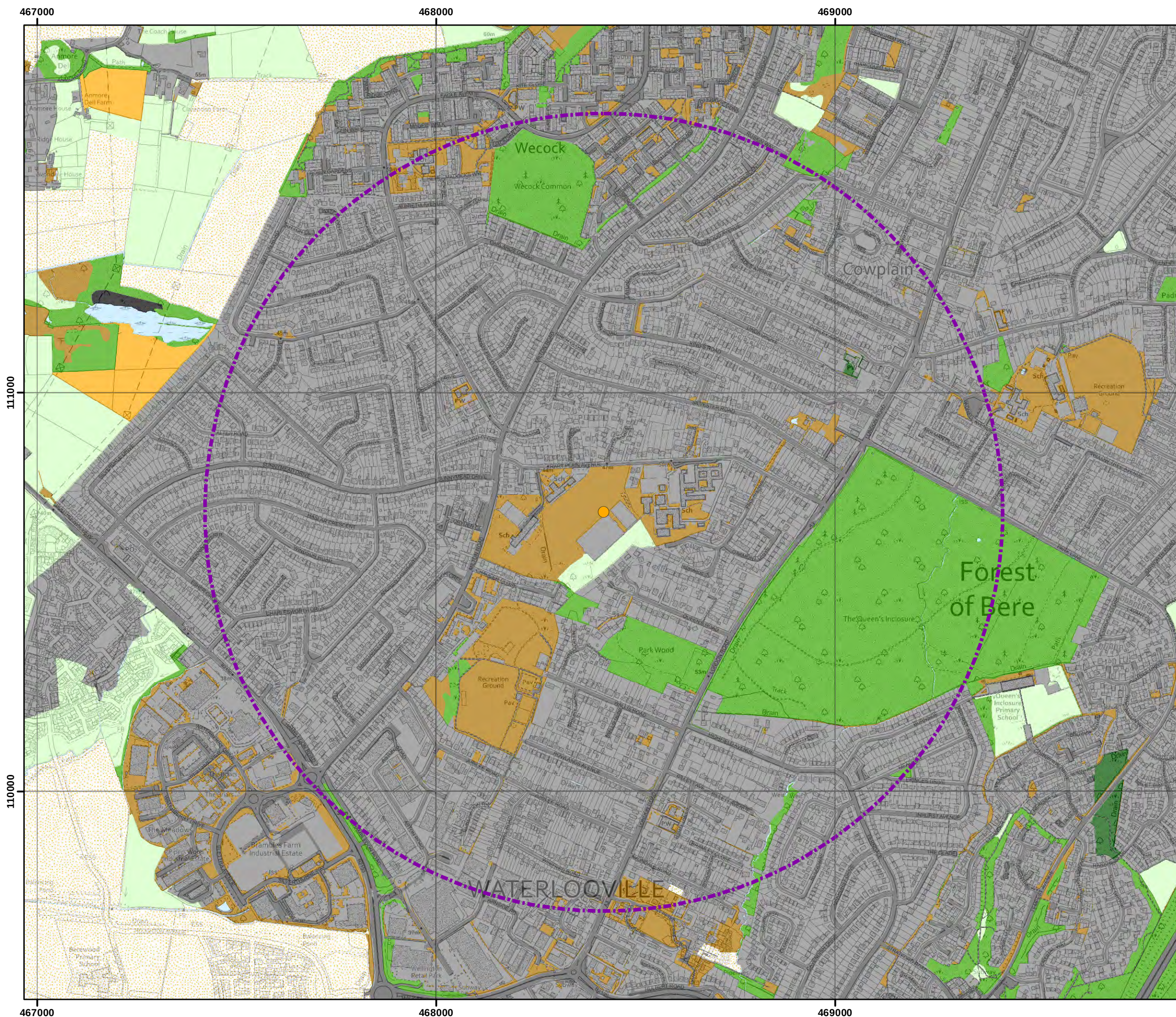


Appendix 6



Please note: The boundaries for statutory sites have been provided as digital data from Natural England (NE); this digital data is indicative not definitive. Paper maps produced by NE at the time the sites were designated show the official site boundaries.

Appendix 7



Hampshire Biodiversity
Information Centre

HBIC Ref: 10041

**Broad habitats within 1km
of Cowplain School,
Waterlooville
(SU68421070):**

Some Habitats may overlap.
Please see 'UK Broad Habitats
Legend' for full Legend, there
is a link to this within
your covering letter

(see explanatory note for details of the origin and accuracy of this data)

Legend



1km Search Area

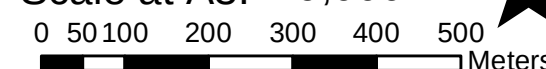


Central Search Point

Your licence to re-use expires on 04/08/2022

Created: 04/08/2021

Scale at A3: 1:9,000



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Hampshire Biodiversity Information Centre

Legend for UK Broad and Priority Habitats

Broad Habitats

	Acid grassland
	Arable and horticulture
	Bog
	Boundary and linear features
	Bracken
	Broadleaved, mixed, and yew woodland
	Built-up areas and gardens
	Calcareous grassland
	Coniferous woodland
	Dwarf shrub heath
	Fen, marsh and swamp
	Improved grassland
	Inland rock
	Inshore sublittoral rock
	Inshore sublittoral sediment
	Littoral Rock
	Littoral Sediment
	Neutral grassland
	Rivers and streams
	Standing open water and canals
	Supralittoral Rock
	Supralittoral Sediment
	Unidentified habitat
	Unidentified water

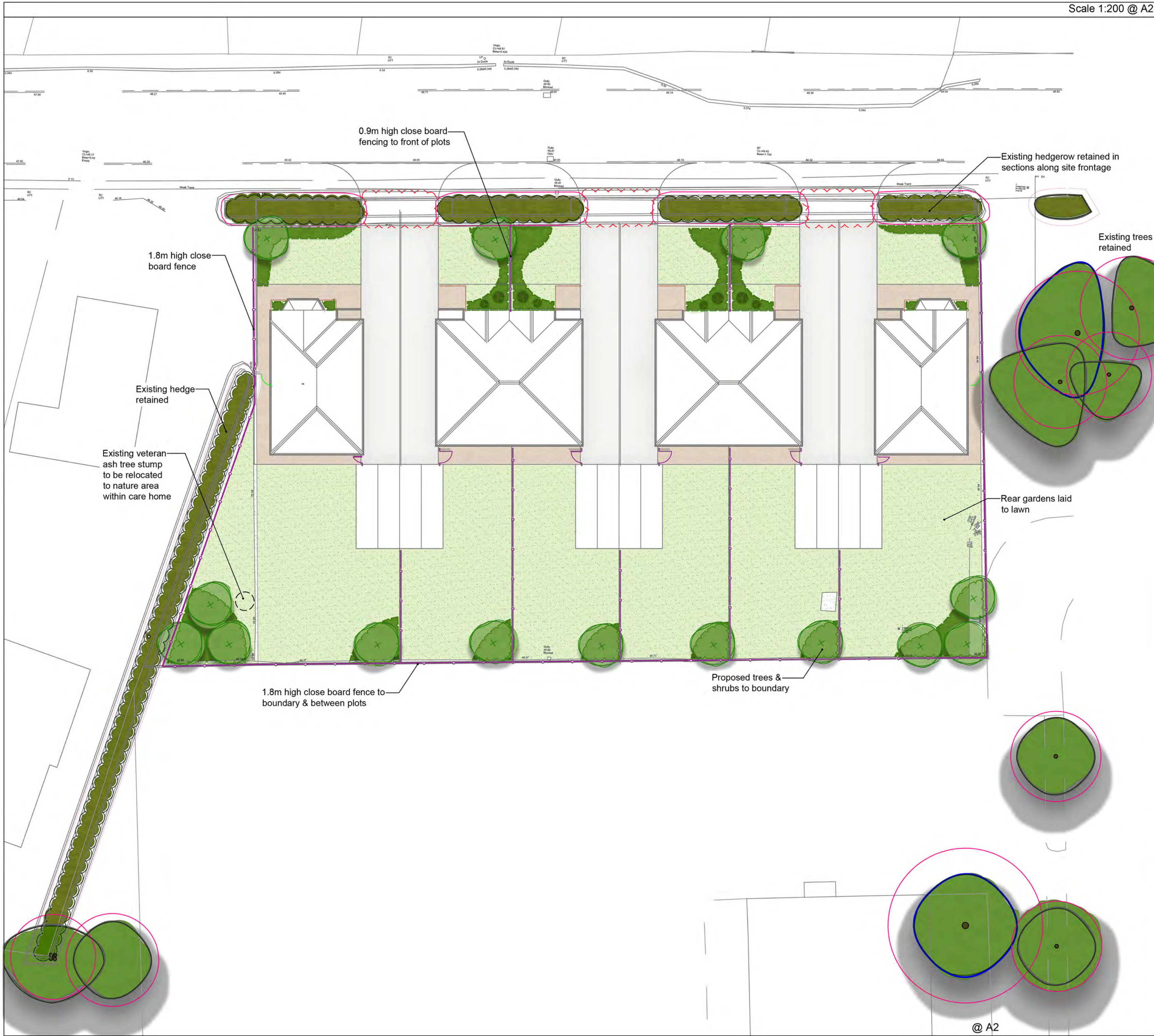
Priority Habitats

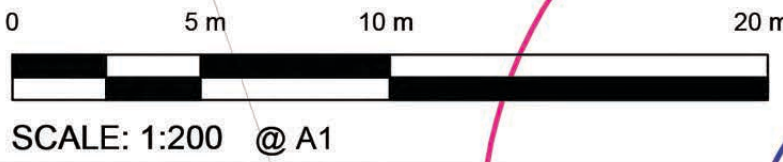
	Arable Field Margins
	Coastal Saltmarsh
	Coastal Sand Dunes
	Coastal Vegetated Shingle
	Coastal and Floodplain Grazing Marsh
	Eutrophic Standing Waters
	Hedgerows
	Intertidal Mudflats
	Lowland Beech and Yew Woodland
	Lowland Calcareous Grassland
	Lowland Dry Acid Grassland
	Lowland Fens
	Lowland Heathland
	Lowland Meadows
	Lowland Mixed Deciduous Woodland
	Maritime Cliff and Slopes
	Ponds
	Purple Moor Grass and Rush Pastures
	Reedbeds
	Rivers
	Saline Lagoons
	Seagrass Beds
	Traditional Orchards
	Wet Woodland
	Wood-Pasture and Parkland

Sharing information about Hampshire's wildlife

The Hampshire Biodiversity Information Centre Partnership includes local authorities, government agencies, wildlife charities and biological recording groups.

Appendix 8





Key

Softworks Key

- Existing trees to be retained with Root Protection Areas indicated
- Existing tree/vegetation to be removed
- Existing shrubs and hedgerows on site boundary to be retained and managed
- Proposed tree (Standard, ANS)
- Proposed orchard trees
- Proposed individual specimen shrubs
- Proposed plant within pots on private patio gardens
- Proposed shrub planting
- Proposed understory planting
- Proposed low-medium height sensory shrub planting (plants with high sensory attributes (e.g. Lavender, Lamb's Ears, Sage, Rosemary, Coneflower))
- Proposed low evergreen hedgerow such as Euonymus 'Jean Hugues', maintained to a height of 900mm
- Proposed single species native hedgerows
- Proposed high quality grass areas
- Proposed species rich grass/meadow
- Proposed bulbs within mown grass
- Proposed climber plants

Hardworks Key

- Roads and parking bays - to engineers details
- Proposed resin bound footpaths
- Proposed seating/dining/growing area spaces - feature paving 600x300mm slab paving, natural colour, laid staggered bond with feature concrete block to edge
- Proposed private terraces 450x450mm slab paving, buff colour, laid stack bond with pin kerb edge
- Proposed paving to growing area - 600x600mm BS concrete paving laid stack bond with pin kerb edge
- Proposed sensory water/sculpture feature
- Proposed bird feeding stations containing bird feeders and bird baths
- Proposed raised timber planters within growing area Ht varies 600mm and 750mm height. Growing area in addition to contain secure compost bins and greenhouse and picnic bench for potting up activities.
- Proposed fixed timber seat with armrests and backrests
- Proposed non-fixed seating area with tables
- Proposed garden building - Timber gazebo structures

Fencing

- Existing fence to be retained
- Proposed 1.2m high picket fence to growing area with lockable gate
- Proposed 1.8m high railing with lockable gate
- Proposed closeboard fence with 0.3m trellis above

A	Amendments following receipt of updated architectural base.	SE	17.06.2022
Letter	Revision	By	Date

Project
Cowplain School, Waterlooville
Care Home
Drawing
Landscape Proposals

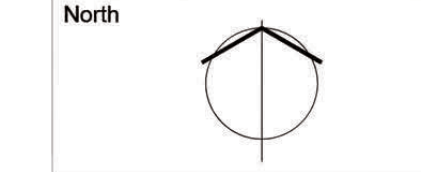
Status
Planning

Do not scale off drawing. All dimensions & Levels are to be checked on site. Any discrepancies must be reported to the landscape architect immediately.
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thelandscapepartnership

Bedford	01234 261315	☒
Woodbridge	01394 360509	☐
London	020 7252 0002	☐
Norwich	01603 230777	☐

Job No.	B21016
Dwg. No.	104A
Scale	1:200@A1
Drawn	SE
Checked	DT
Date	24.05.2022





23rd October 2022

Planning Officer
Havant Borough Council

Dear Mr Christie

APP/22/00837 | Erection of a 64 bed care home (within Use Class C2) and 6No. dwellings (within Use Class C3) with associated works including access, parking and landscaping. | Land at Cowplain School, Hart Plain Avenue, Waterloooville

I am writing to you on behalf of Hampshire Swifts, a charity devoted to the conservation of Swifts in Hampshire and part of a national network of Swift groups throughout the UK.

The purpose of this letter is to request that planning consent for the above-mentioned application, if granted, includes a requirement for multiple integral Swift bricks in the care home and the dwellings, installed in accordance with the British Standard BS 42021:2022 Integral nest boxes.

In their Preliminary Ecological Appraisal The Landscape Partnership say enhancements will include bird boxes on trees. But it is very disappointing that there is currently no provision at all for species of birds who rely solely on cavities in buildings to nest, such as Swifts. Conservation organisations, the NHBC Foundation, and the British Standard BS 42021:2022 Integral nest boxes recommend at least 1 integral nest brick per dwelling, from four to 10 on a small block of flats and 10 to 40 or more on a large building, such as a hotel, care home or school. Current best practice guidance dictates that nest boxes on buildings should be integral swift brick types, as these are permanent, require no maintenance, have better temperature regulation with future climate change in mind, and are aesthetically integrated with the design of the development. Swift bricks are a universal nest brick as they are readily used not just by Swifts but also by House Sparrows, Starlings (provided the entrance is large enough), Great Tits, Blue Tits and other species. We request that multiple swift bricks should be installed in this development, if approved, in accordance with British Standard BS 42021:2022 Integral nest boxes.

The integration of nest sites for birds is in keeping with the following national policy and guidance:

- Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, states: **“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”**
- Section 174(b) of the revised National Planning Policy Framework (NPPF, 2019), states: **“To promote and enhance biodiversity and geodiversity, plans should: ...identify and pursue opportunities for securing measurable net gains for**



Hampshire Swifts

biodiversity...". This is explained further by the accompanying guidance notes (NPPF, Natural Environment Guidance, paragraph 023): "...relatively small features can often achieve important benefits for wildlife, such as **incorporating 'swift bricks'** and bat boxes in developments..."

- Furthermore, the government's support for such measures was stated explicitly in the accompanying government press release: "...expectations on how developers can protect specific species, including using **hollow swift bricks – which are installed into the walls of new build homes, allowing the birds to nest safely.** <https://www.gov.uk/government/news/brookshire-orders-house-builders-to-protect-wildlife>.
- **NHBC Foundation: Biodiversity in new housing developments: creating wildlife-friendly communities (April 2021)** states: "Provision of integrated nest sites for swifts is through hollow chambers fitted into the fabric of a building while in construction. Although targeting swifts they will also be used by house sparrows, tits and starlings so are considered a 'universal brick'" page 42).
- CIEEM (In Practice, June 2019) state: "resulting in an equal number overall of nest sites and residential units" (How Many Nest Bricks? page 40) <https://cieem.net/resource/the-swift-a-bird-you-need-to-help/>

Swift, House Sparrow and Starling are all now red-listed because they are at high risk of extinction. All 3 species are undergoing major declines caused mainly by the loss of nesting sites on existing houses due to re-roofing and replacement of soffits and fascias and the lack of nest sites in new buildings. **Between 1994 and 2021, for example, Swifts declined by 62% in the UK as a whole and by 70% in the South-East. All these species readily use Swift bricks when these are integrated into new developments.**

Integration of Swift bricks is very easy to include into routine building practices and results in a permanent, discrete, maintenance-free biodiversity enhancer which will provide much-needed breeding spaces for declining species of birds. Further information on Swift bricks, including advice on where they should be installed and how many to use can be obtained from Hampshire Swifts, info@hampshireswifts.co.uk.

A summary of the British Standard BS 42021:2022 Integral nest boxes is given overleaf.

Yours sincerely
Prof Catharine Gale
Trustee of Hampshire Swifts



Summary of British Standard BS 42021:2022 Integral nest boxes

The standard is aimed at building-integrated nest boxes for the following cavity nesting species (although other species may potentially use the boxes): Swift, Starling, Great Tit, Blue Tit, House Sparrow.

The document notes that House Martins do sometimes use nest bricks [e.g. Schwegler 1A bricks], and there are further details of nest cups as stated below.

The standard does not cover glass buildings - which are often inappropriate locations to attract birds, nor metal frame buildings with insulated or fire-rated cladding which have additional considerations, nor exterior nest boxes.

An installation plan must be prepared in consultation with interested parties, and on completion the local authority must be sought to confirm suitable installation.

Integral nest boxes must be installed in all new developments (in cases where BS 42021 is specified), including modular pre-fabricated construction, with the exception of buildings in or near fully glazed buildings due to collision risk.

Integral nest boxes must be weather resistant, temperature change resistant, and have easy entrance and exit.

<i>Internal dimensions of integral nest boxes</i>			
	Preferred	Minimum dimensions	
Floor area	>400 cm ²	300 cm ²	
Shorter floor dimension	>14 cm	10 cm	
Headroom	>10 cm	7.5 cm	
These dimensions ensure there is adequate space for a brood of, for example, three nestling swifts and two parents, as well as adequate space for swifts to manoeuvre without difficulty. As such, this provides adequate space for target species.			
Some examples of successful integral nestboxes have floor dimensions of: (10 cm x 30 cm), (17.5 cm x 20 cm) and (18 cm x 40 cm). Internal heights range from 7.5 cm to 17.5 cm			

External dimensions to be compatible with standard brick and/ or block sizes.

Entrance hole to be less than 50mm from the floor of the box, or the inside to provide grip to enable the birds to easily climb out of the box.

Entrance hole to be minimum 30mm x 65mm, except where a suitably competent person advises 28mm x 65mm to exclude starlings and favour smaller species.

Integral nest boxes to be labelled top/ bottom for installation.



Summary of British Standard BS 42021:2022 Integral nest boxes cont.

Integral nest boxes to be constructed of materials that prevent high levels of humidity and are resistant to overheating and cooling.

Integral nest boxes shall be installed in buildings dispersed around the development site. The positioning of integral nest boxes shall take into account: a) open sources of clean water accessible to birds; b) suitable habitat within and around the development for birds to occupy, and c) suitable nearby natural sources of food through provision of suitable habitat; and minimise potential for droppings nuisance.

The following positions shall be avoided: 1) areas that are exposed to extended periods of direct sunlight or prevailing weather conditions; 2) near perches that could be used by avian predators; and 3) areas where cats, rats and squirrels have easy access, e.g. near ledges.

Integral nest boxes shall be a) in gable ends or under eaves; b) inserted into walls: 1) backing onto cold voids, i.e. adjacent to the roof space; and/or 2) where installation of the box avoids cold (thermal) bridging; c) in association with external wall features, e.g. under eaves, near the verge in a gable, beneath ledges and inserted into parapets; and d) at a suitable height above ground: for buildings up to three storeys at the highest possible point, and for buildings over three storeys the integral nest boxes shall be a minimum of 4m above ground level.

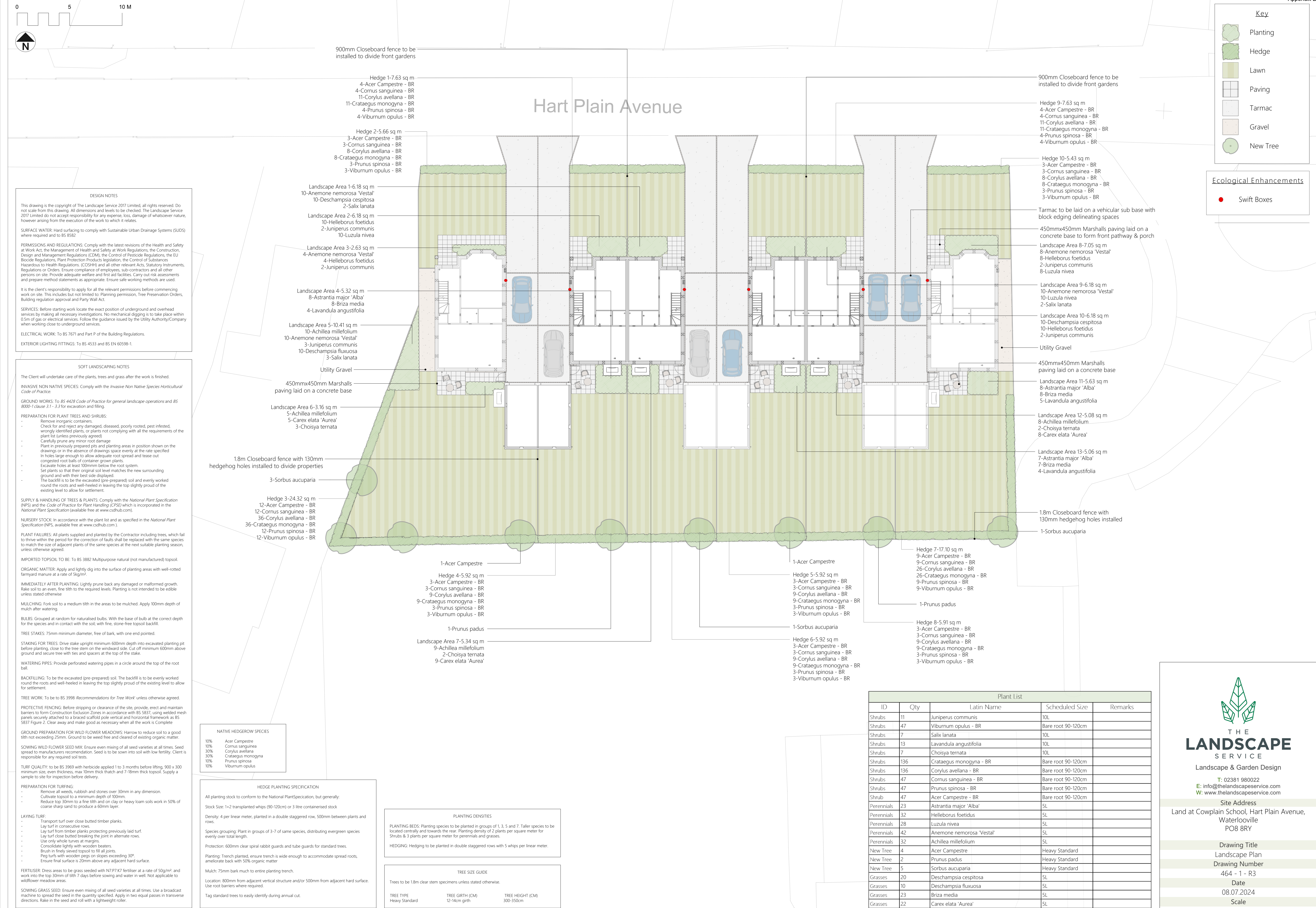
New residential developments to have a number of integral nest boxes at least equal to the number of dwellings, i.e. the ratio of integral nest boxes to dwellings is 1:1. In practice this means that some dwellings could receive more than one box while others might contain none due to suitability of the location.

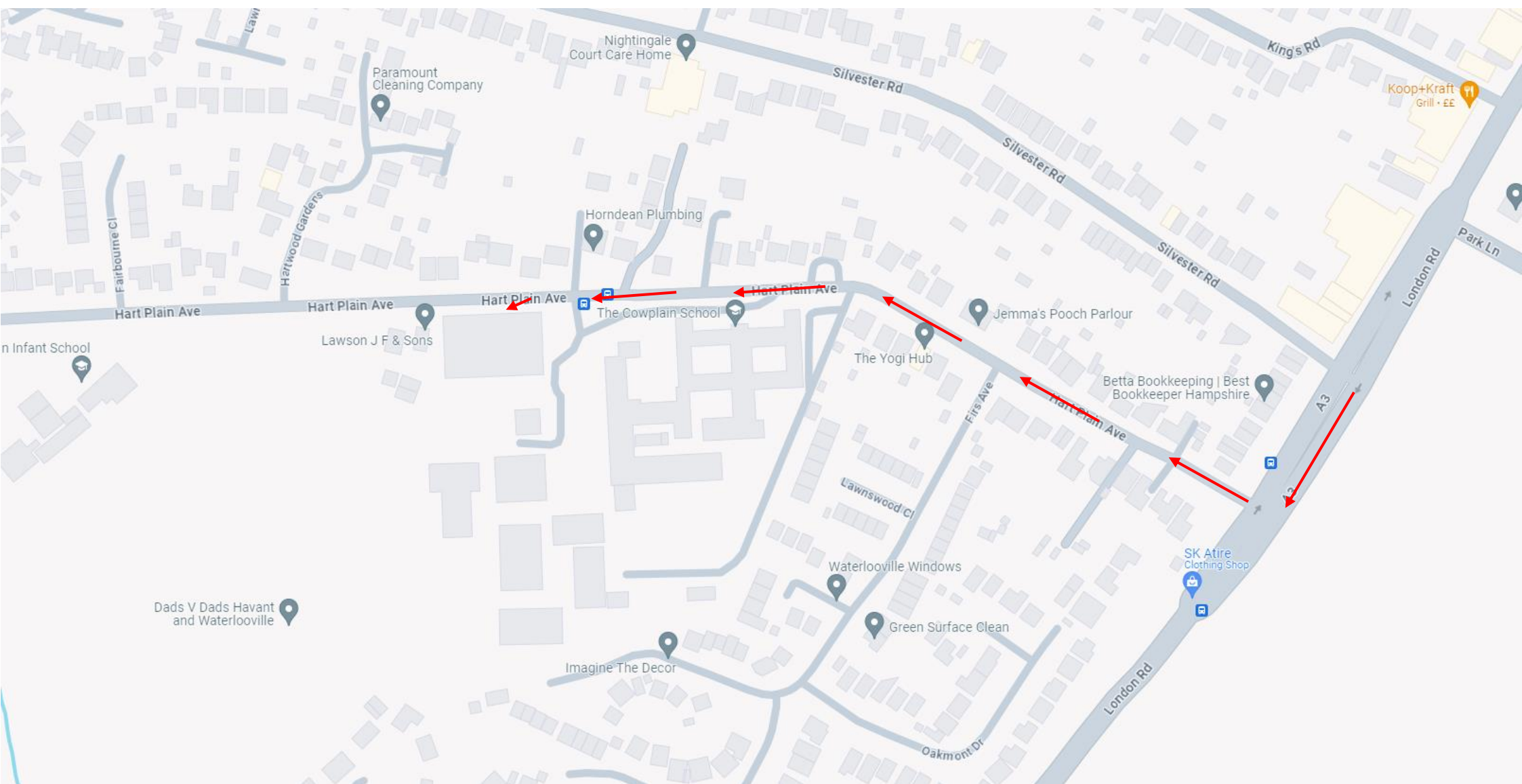
For larger developments, the number of integral nest boxes to be installed shall be *“proportionate to the size and design of the building”*.

For colonial species, integral nest boxes shall be installed close together, e.g. two boxes located in every other house, or three in every third dwelling.

To encourage swifts, integral nest boxes shall be installed so that there are: a) two to four on a medium to large house; b) from four to 10 on a small block of flats; and c) 10 to 40 or more on a large site, such as a school, hospital, warehouse, or a major apartment development.

Swallows and house martins can be accommodated using commercially available man-made swallow cups and house martin nests, which should be positioned: a) for swallow cups: in open access structures, such as pergolas, verandas, open entrance lobbies, open-sided car ports, or suitable open-sided structures; and b) for house martin nests: under eaves. To reduce mess, boards to catch droppings can be installed under the nest site. Provision for swallows and house martins can be provided in any suitable location on site, such as open-sided car ports and garages.





Pre-Commencement Survey Order

IMPERIAL HOMES SOUTHERN COUNTIES LTD











