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Ecology Consulting

Front Lawn Recreation Ground Havant

Extended Phase 1 Habitat Survey

An ecological appraisal of the nature conservation value of the site and ecological constraints associated with the new all-weather sports pitch, multi use games area, extension to the existing pavilion and cage cricket ground at Front Lawn Recreation Ground.

Report for

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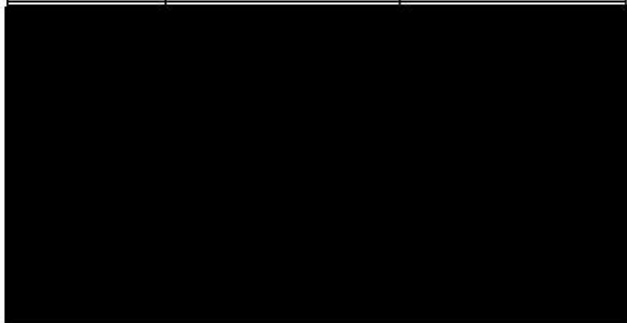
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1.0. Summary

J Taylor Ecology Consulting were commissioned to undertake an Extended Phase 1 Habitat Survey in relation to with the submission of a planning application for a new all-weather sports pitch and multi use games area with an extension to the existing pavilion and cage cricket ground in the western part of Front Lawn Recreational Ground in Havant.

A detailed scoping survey of the site and surrounding area was undertaken on 23rd and 24th September 2015. An assessment was then made of the potential for the site to support protected species listed on Schedules 1 and 5 of the Wildlife and Countryside Act 1981 (as amended) and any Biodiversity Action Plan Priority Species or Habitats. As part of the field survey, a detailed Preliminary Bat Appraisal (Hundt L 2012) was also undertaken, consisting of a visual inspection of the existing pavilion and the trees on or adjacent to the site. A comprehensive desk study was also undertaken. The following conclusions were identified.

- No statutory or non-statutory sites will be affected by the proposals.
- None of the habitats impacted by the proposals are considered to be Habitats of Principal Biological Importance on Section 41 of the NERC Act 2006 or are listed in the Hampshire Biodiversity Action Plan.
- None of the flora species recorded are specifically protected by the Wildlife and Countryside Act 1981 (as amended) or are listed as Priority Species on the UK National Biodiversity Action Plan (UK BAP 2007) or are listed in the Hampshire Biodiversity Action Plan.
- The proposals require the removal of six early mature trees to facilitate the car park extension. Hence, in accordance with the submitted Tree Survey (Andrew Skeet 2015), measures should be implemented to ensure that trees adjacent to working zones are adequately protected in accordance with BS5837:2012 "Trees in relation to design, demolition and construction" (British Standards Institution 2012).
- Given that the proposals require that a small number of trees are removed, together with the proximity of the work to a number of the other trees on site, there is the potential for impact or disturbance to nesting birds. All nesting birds, their nests, eggs and young receive legal protection under the Wildlife and Countryside Act 1981 (as amended). Therefore, the work should commence outside the bird-nesting season (mid March to August inclusive). If this is not possible, the working area should be checked for wild nesting birds, their eggs, nests or young before work is permitted to commence.
- No evidence of use of the pavilion by bats was identified. The building was of modern construction and lacked suitable features or entry points. Hence the likelihood of bat presence in the pavilion was assessed as negligible, according to the criteria in Section 3.4.
- The six trees that require removal in order to facilitate the car park extension were assessed as having a negligible likelihood of use by bats. However, the results from the desk study identified a significant number of records of bats in the study area, and given that the wider site has a number of both mature and late mature trees (including three located centrally on the site that were assessed as having a moderate likelihood of use by bats), bats may use the area for foraging or commuting. Given the proposals incorporate new floodlighting, and that bats are sensitive to artificial lighting, there is the potential for a low level of disturbance to occur.

Therefore mitigation is proposed based upon reducing the potential impact of the floodlighting on bats, through the appropriate choice of luminaries and design of the lighting hood and columns.

- Records of stag beetle were identified within the study area, and although the site was not considered suitable for use by breeding stag beetles, there is the risk of encountering mating adult stag beetles should work take place during early summer (May to July).
- There is the potential for hedgehogs to be present (which are a UK Biodiversity Action Plan Species), mainly along the northern and eastern boundaries of the site. Precautionary mitigation measures are proposed to minimise the risk of impact should they be present.

Recommended ecological enhancements are also provided aimed at meeting Sections 109 and 118 of the National Planning Policy Framework (NPPF) 2012, which seeks to incorporate measures to further the conservation of protected species and biodiversity in general. In particular, recommendations regarding the general landscaping and planting with native species with known wildlife benefits are also made.

2.0. Introduction

2.1. Background

J Taylor Ecology Consulting were commissioned by Mr. Steve Wildman of PDP Architecture LLP, on behalf of their client Havant Borough Council, to undertake an Extended Phase 1 Habitat Survey at Front Lawn Recreational Ground, Somborne Drive, Havant, PO9 5AW, (approximate central OS grid reference SU718081). The survey was required in conjunction with the submission of a planning application for a proposed scheme to construct a new all-weather sports pitch and multi use games area with floodlights together with an extension to the existing pavilion and cage cricket ground in the western part of the recreation ground.

The proposals centre on the construction of a 100m by 64m all-weather sports pitch, which will be lit using artificial lighting on columns to extend its use. To support the new all-weather sports pitch, the existing pavilion to the south of the site which is used as changing rooms will be extended eastwards and modernised, to provide a suite of training rooms. The adjacent existing car park is to be re-surfaced and enlarged.

A multi-use games area is also proposed on the site of the existing hard standing tennis courts close to the western boundary, which will be constructed using a porous all weather surface to accommodate a variety of sports. Adjacent to the proposed multi-use games area, a cage cricket ground is proposed. Both the multi-use games area and cage cricket ground will be constructed on top of the existing hard standing tennis courts, and may be subject to floodlighting depending on the final design.

Front Lawn Recreational Ground currently extends to approximately 4.9ha, with the proposed work limited to the western part of the site (marked in red on the Existing Site Plan in Appendix 9.2). The site is owned by Havant Borough Council.

2.2. Site Context

Front Lawn Recreational Ground is located in the Leigh Park area of Havant, approximately 1500m north of Havant town centre in the south east corner of Hampshire. A short distance further north of the site lay Staunton Country Park and the South Downs National Park. The site lies within Havant Borough Council area, a metropolitan district of Hampshire County Council.

Front Lawn Recreational Ground comprises predominantly of a large area of short amenity grassland used for sport and recreation. The site is accessed from the south west corner off Somborne drive, with a small parking area close the pavilion located centrally on the southern boundary. Pedestrian access points are provided through the northern boundary of the site off High Lawn Way and off Broadmere Avenue. To the west of the recreation ground are three tennis courts on hard standing, surrounded by a high wire fence. Adjacent to the north is a children's play area with a zip wire and play equipment.

A number of mature trees are located centrally on the site, in the north western area near the children's play area and in the south eastern corner, all of which are to be retained. A number of early mature and young trees are also present, predominantly alongside the pedestrian paths around the site boundary

For the purpose of this report the "site" is defined as the ownership boundary outlined in blue on the Existing Site Plan in Appendix 9.2. with the proposed working area outlined in red. The proposed plan of the site is presented in Appendix 9.3. The study area is defined as a 1.5km radius from the site boundary. Photographs of the site are provided in Appendix 9.1, together with a detailed Phase 1 Habitat Survey Plan in Appendix 9.4.

2.3. Pre-existing information on the site

No previously conducted ecological survey work was identified within the boundary of the site, or in close proximity. However a comprehensive desk study was undertaken as part of this assessment.

2.4. Purpose

The purpose of this ecological appraisal is as follows:

- To identify the broad habitat types present using the standard Phase 1 Habitat Survey methodology (JNCC 2010) and identify any key habitat features of the site and make a provisional assessment of the nature conservation value of the habitats on and around the site on the basis of the information obtained.
- To assess the potential of the habitats on and around the site to support legally protected or Biodiversity Action Plan species.
- To identify any possible impacts of the proposed work on any ecological receptors present.
- To identify potential ecological constraints relating to the proposed development.
- To identify appropriate mitigation or compensation measures for the above.
- To identify opportunities for ecological improvement, in particular to recommend measures to ensure that the biodiversity value of the site would be maintained and enhanced where possible in accordance with 109 and 118 of the National Planning Policy Framework (NPPF) 2012.

3.0. Methodology

3.1. Personnel

The field survey of the site was undertaken by Jonathan Taylor BEng (Hons) PGCert MSc MCIEEM on 23rd September 2015, with the preliminary bat appraisal conducted on the pavilion on 24th September 2015. Jonathan is fully qualified Ecological Consultant with over 15 years experience and an expert knowledge of ecological appraisals and impact assessments on an extensive range of habitats and species. He has an expert knowledge of bat ecology and legislation, from both formal training and working alongside experienced bat surveyors. He also has a practical understanding of factors affecting ecology in relation to the built environment and regularly provides recommendations for ecological protection, enhancement and mitigation measures.

As a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM), Jonathan adheres to the Institute's Code of Professional Conduct and professional ethics, and maintains a standard of knowledge and experience in accordance with the CIEEM Continuing Professional Development Policy.

3.2. Desk Study

A desk study was undertaken to identify the presence of any statutory designated wildlife sites and non-statutory designated sites within 1.5km of the site boundary. In addition, a search was undertaken for all legally protected or priority species of flora and fauna within the 1.5km area. The following resources were consulted:

- The Multi Agency Geographic Information for the Countryside (www.magic.gov.uk) for information on UK and European designated wildlife sites.
- Up to date Natural England Geographic Information System (GIS) Digital Boundary Datasets were imported as ESRI Shape files and viewed on ARC GIS Explorer to identify the location and extent of both statutory and non-statutory protected sites, including designated Ancient Woodland (<http://www.gis.naturalengland.org.uk/>).
- Information provided by Hampshire and Isle of Wight Wildlife Trust (www.hiwwt.org.uk) and Hampshire Biological Information Centre, (www3.hants.gov.uk/biodiversity/hbic) was examined for information relating to any non-statutory protected sites within the study area.
- Information provided by Hampshire Biological Information Centre, together with local sources and our own records were used to identify any records of previously recorded protected and priority species.
- The UK Biodiversity Action Plan (www.ukbap.org.uk) for information on national priority habitats and species. The Hampshire Biodiversity Partnership (www.hampshirebiodiversity.org.uk) was consulted for an indication of the habitats and species that have been targeted for conservation action in the area.
- Within Havant, planning policy (Policy CS11 of the Havant Borough Local Plan (Core Strategy) sets out the requirements and priorities in relation to biodiversity and planning.
- Ordnance Survey maps and aerial photographs were examined to identify all water bodies located within a 500m of the proposed development site. This was undertaken as great crested newts (*Triturus cristatus*) can use suitable terrestrial habitat up to 500m from a breeding pond (English Nature Report ENRR Number 576).

The desk study is valuable in identifying past records and nature conservation designations. Understanding nature conservation issues within the wider area helps in the assessment of the ecological value of the site, the habitats and species that the site may support. However, desk study data is not likely to be exhaustive and is intended mainly to set a context for the study. It is therefore possible that protected species not identified during the data search do occur within the vicinity of the proposed development site.

3.3. Field Survey

3.3.1. Extended Phase 1 Habitat Survey

The Phase 1 Habitat Survey followed the standard methodology (JNCC 2010) and covered the proposed working area including any adjacent boundary features. In addition, habitats immediately adjacent and areas of the site not affected by the proposals but still considered to be suitable for protected species, were also noted. All broad habitat types present were described, with the dominant plant species recorded and habitats classified according to their vegetation types. These are presented in the standard Phase 1 Habitat Survey format with habitat descriptions and a habitat map (Appendix 9.4). In order to supply additional information, target notes describe features of particular importance. Incidental records of birds and other fauna noted during the course of the habitat survey were also compiled. Plant species were recorded as encountered, together with estimates of cover and abundance where appropriate (on the DAFOR scale i.e. Dominant, Abundant, Frequent, Occasional, and Rare) and follows the nomenclature of Stace (1997) for vascular plant species.

An assessment was then made of the potential for the site to support protected species listed on Schedule 1 and 5 of the Wildlife and Countryside Act 1981 (as amended), or those listed on either the UK or Hampshire Biodiversity Action Plan. The site was also examined for the presence of vascular plants listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) or in the UK or the Hampshire Biodiversity Action Plan. The presence of any alien invasive species of plants listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended), such as Japanese knotweed or giant hogweed, was also identified and their location recorded.

The site and a 50m zone around the site (where land access was permitted) were searched for the presence of badger setts and evidence of badger activity e.g. latrines, hairs, scrapes, footprints and run-throughs.

As part of the field survey a Preliminary Bat Appraisal was undertaken consisting of a visual inspection of the structure and condition of the buildings impacted by the proposals and any trees along the boundary in the immediate vicinity of the proposed working areas, taking into account their age and species. The purpose of the appraisal was to establish the potential for bats to be present roosting within any of the trees. The assessment for bats was based on the guidance included in the Bat Conservation Trusts Bat Surveys - Good Practice Guidelines (Hundt L 2012) and Bat Workers Manual (JNCC 2010). The value of the wider area was also assessed for any foraging or commuting potential.

The age class for a tree is estimated based on its expected life span in its given situation, taking into account any defects, the form of the tree etc. The categories are Young (Y), Early Mature (EM – less than 1/3 of expected life span), Mature (M 1/3 to 2/3 of expected life span), Late Mature (LM – more than 2/3 of expected life span) and Veteran (V).

3.4. Evaluation

Following completion of the Phase 1 Habitat Survey, the ecological value of the site was evaluated using the guidance issued by the Institute of Ecology and Environmental Management (IEEM, 2006),

which evaluates sites according to a geographic scale; significance at the international level down to the local level. The geographical value categories used in this assessment are: International (i.e. Europe), National (i.e. UK/England), County (i.e. Hampshire), District (i.e. Havant), Local (i.e. around Leigh Park and Site (i.e. within the immediate zone of influence). The evaluation categories for species are the same as those for habitats and where species are confirmed as present on site, estimation of the species value is given, having consideration to its distribution and status and historical trends. Examples of the factors that are considered in defining such ecological values are given in Appendices 9.5 and 9.6.

The potential for the site to provide habitats for protected species was assessed from field observations carried out at the same time as the Extended Phase 1 Habitat Survey, combined with the results of the desk study. The likelihood of species occurrence is ranked as follows and relies on the findings of the current survey and an evaluation of results of the desk study. The Bat Conservation Trusts Bat Surveys - Good Practice Guidelines (Hundt L 2012) provides a protocol for assessing the likelihood of bat presence and this forms the basis for the evaluation criteria in relation to bats in trees.

Negligible – while presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. No relevant local results from a data search, surrounding habitat considered unlikely to support wider populations of a species/species group. The site may also be outside or peripheral to known national range for a species. In relation to bats, the building or defined section of the building has no suitable features capable of supporting roosting bats, with no suitable entry points, or a single skin and no roof void. They tend to have high interior light-levels, and little or no insulation. The trees are assessed as Category 3 (Hundt L 2012), as having no potential to support bats, such as loose bark or obvious cracks or fissures. The trees are immature or semi-mature specimens with a small girth, or species which do not tend to form fissures such as sycamore.

Low – on-site habitat of poor to moderate quality for a given species/species group. Few or no relevant results from data search, but presence cannot be discounted. In relation to bats, no evidence of bats was found during the survey. The building or defined section of the building has limited features for roosting bats, such as shallow crevices or gaps in brick or block work pointing. Such openings may be in locations which may be subject to large temperature fluctuations, or be constrained by external obstacles or lighting. The building may be surrounded by poor or sub-optimal bat foraging habitat. Trees fall under Category 2 (Hundt L 2012) being of no obvious potential such as cracks or fissures, but may have some ivy cover or loose bark.

Moderate – on-site habitat of moderate quality, providing all of the known key requirements of given species/species group. Local results identified from the data search and suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat severance, and disturbance. For bats, on-site habitat provides all of the key requirements for bat presence, but no evidence of bats found. The building or defined section of the building has some features which are suitable for roosting bats, which are of brick or stone construction with a small number of features of potential value to roosting bats, such as loose roof or ridge tiles, gaps in pointing, gaps under fascia boards, and/or warm sealed roof-spaces with under-felt. These may be used as occasional or transient roosts in the summer, but are unsuitable for large colonies. Trees on site are assessed as a Category 1 (Hundt L 2012) as trees with definite bat potential, as they contain some features suitable for roosting bats such as cracks or fissures or large amounts of loose bark, and are predominantly semi-mature or mature specimens. This would have fewer suitable features than category 1* trees.

High – on-site habitat of high quality for given a species/species group. Relevant local records present from data search. The site is within/peripheral to a national or regional stronghold. Good quality surrounding habitat and good connectivity. In relation to bats, no evidence of bats found. The building or

defined section of the building has a large number of features or extensive areas of obvious potential for roosting bats. They are located in sheltered locations with a stable temperature regime a number of suitable bat access points, and could be suitable for a maternity roost. The trees are assessed as Category 1* tree defined as a trees with multiple, highly suitable features capable of supporting larger roosts (Hundt L 2012). The trees contains features that are highly suitable for roosting bats, such as woodpecker holes, large cracks or crevices, and may have a hollow trunk.

Present – presence confirmed from the current survey or by recent confirmed records. The building, defined section of the building or tree was found to contain conclusive evidence of occupation by bats, such as bat droppings.

3.5. Limitations

Ecological surveys are limited by factors which affect the presence of plants and animals such as the time of year, migration patterns and behaviour. The ecological survey of these sites has not therefore produced a complete list of plants and animals and the absence of evidence of any particular species should not be taken as conclusive proof that the species is not present or that it will not be present in the future. However, the results of the survey enable an initial evaluation of the ecological value of the site to be made, together with an assessment of the potential for negative impacts and opportunities for enhancement.

The data provided by Hampshire Biodiversity Record Centre included species records which are dassed as "sensitive", and hence the resolution was limited to a 1km grid square. Where this was the case, approximate distance and direction from site was calculated, but it should be acknowledged that the record maybe located up to 500m from the estimated location.

It should be acknowledged that bats are highly mobile and may move between different roost sites throughout the year. In addition, new features such as cracks, crevices or openings may appear at any time. Hence the results of this survey are considered to be valid only at the time the survey was conducted.

The weather conditions were satisfactory at the time of the survey, and not considered to pose a constraint to the appraisal.

4.0. Results and Ecological Baseline

4.1. Desk Study

4.1.1. Statutory Designated Sites

No statutory designated wildlife sites have been identified within 1km of the site boundary.

4.1.2. Non-Statutory Designated Sites

The following non-statutory sites were identified within 1.5km of the site. Sites of Importance for Nature Conservation (SINC) are selected by a Local Sites Panel comprising representatives from Natural England, Hampshire and Isle of Wight Wildlife Trust and Hampshire County Council Ecology Group. This designation is applied to all known sites which meet the selection criteria. These sites are protected through the planning system in accordance with the National Planning Policy Framework.

Table 1 – Non- statutory sites identified within the vicinity of the site.

Site	Designation	Central Grid Reference	Brief Description	Location from working area
Thicket Bottom	SINC 1D AW	SU71950936	Pasture woodland of considerable biological and historical interest.	1075m N
Hammond's Lands Copse	SINC 1A AW	SU72300940	Ancient semi-natural woodland.	990m NNE
Barton's Copse & The Slip	SINC 1A AW	SU73400850	Ancient semi-natural woodland.	1095m E
The Warren, Havant	SINC 1B/1Cii	SU70500930	An area of woodland where there is a significant element of ancient semi-natural woodland surviving.	1254m WNW
Middle Clearing	SINC 1A AW	SU71250960	Ancient semi-natural woodland.	1321m WNW
Thicket Lawn	SINC 2A/6A	SU71600900	Ancient semi-natural woodland. Which supports smooth brome (<i>Bromus racemosus</i>) a county scarce plant.	599m NW
Great Copse, Havant	SINC 1A AW	SU71800840	Ancient semi-natural woodland.	126m N
High Lawn	SINC 2B	SU71900890	Semi-improved grassland which retains a significant element of unimproved grassland.	400m N
Thicket Bottom Woods & Lake	SINC 1A AW	SU71900930	Ancient semi-natural woodland.	524m NNW
Lower Beacon Field	SINC 2A	SU72110919	Agriculturally unimproved grassland.	823m NNE
Wakefords Copse, Havant	SINC 1A AW	SU72400890	Ancient semi-natural woodland.	695m NNE
Battins Copse	SINC 1A	SU71850780	Ancient semi-natural woodland.	186m S

SINC – Site of Importance for Nature Conservation. The aim of the selection process is to identify sites that support the most important habitats and species in Hampshire. The full SINC designation criteria can be found at <http://www3.hants.gov.uk/hbic-sinccriteria.pdf>.

AW – Ancient woodland is woodland which has existed at least since 1600 AD and is usually of much older origin. It contains stands of native trees that are not obviously planted. The sites are listed on Natural England's ancient woodland inventory.

4.1.3. Protected and Action Plan Species

The following legally protected and Biodiversity Action Plan species records were identified within 1.5 km of the site. These are species listed on Schedule 1 and 5 of the Wildlife and Countryside Act 1981 (as amended), Schedule 2 of the Conservation of Habitats and Species Regulations 2010 or those on either the UK or Hampshire Biodiversity Action Plan. In addition, records of badgers were also identified where possible. Results were limited to those that were 20 years old or less and some species omitted where they were assessed as not relevant to the assessment.

Table 2 –Protected or BAP species identified within 1.5km of the site.

Species	Protection Status	Record Details	Location
<i>(Bufo bufo)</i> Common Toad	D	Single record at SU717084 Great Copse, Havant	220m NNW
<i>(Vipera berus)</i> Adder	C - Sch 5 Sec 9.1 (take) D	Two records at SU716086 Havant, Staunton Country Park	450m NNW
<i>(Lucanus cervus)</i> Stag Beetle	D E	Two records at SU7106 Single record at SU717065 Single record at SU718068 Single record at SU718080 Single record at SU720066 Single record at SU7206 Single record at SU723076 Single record at SU728071	Approx 1700m S 1700m S 1400m S 200m S 1600m S Approx 1800m SSE 780m SE 1500m SE
<i>(Eptesicus serotinus)</i> Serotine	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 E	Two records at SU7106 47 record at SU7107 Single record at SU7109 Three records at SU7308	Approx 1700m S Approx 760m SSW Approx 1300m NNW Approx 1700m E
<i>(Myotis)</i> Unidentified Bat	C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 A	Single record at SU7008 Two records at SU7107 Two records at SU7109 Single record at SU7209 14 records at SU7308	Approx 1300m W Approx 760m SSW Approx 1300m NNW Approx 1480m NNE Approx 1700m E
<i>(Myotis bechsteinii)</i> Bechstein's Bat	E D C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 A	Two records at SU70E Three records at SU70J	Within 1500m of site Within 1500m of site
<i>(Myotis mystacinus)</i> Whiskered Bat	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5	Two records at SU7209	Approx 1480m NNE
<i>(Myotis mystacinus/brandtii)</i> Whiskered/Brandt's Bat	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5	Single record at SU7107 Single record at SU7109 Two records at SU7209	Approx 760m SSW Approx 1300m NNW Approx 1480m NNE
<i>(Myotis nattereri)</i> Natterer's Bat	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5	3 records at SU7109 5 records at SU7209	Approx 1300m NNW Approx 1480m NNE
<i>(Nyctalus leisleri)</i> Lesser Noctule	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 E	8 records at SU7308	Approx 1700m E
<i>(Nyctalus noctula)</i> Noctule Bat	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 D	8 records at SU7106	Approx 1700m S
<i>(Pipistrellus nathusii)</i> Nathusius's Pipistrelle	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5	Single record at SU70E	Within 1500m of site

Species	Protection Status	Record Details	Location
<i>(Pipistrellus pipistrellus)</i> Pipistrelle	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 D E	Single record at SU703081 2 records at SU706081 Single record at SU707078 2 records at SU708077 7 records at SU7106 2 records at SU711068 2 records at SU711069 Single record at SU711073 2 records at SU712069 Single record at SU712072 Single record at SU712096 Single record at SU713066 7 records at SU713073 Single record at SU714067 Single record at SU715066 Single record at SU716085 Single record at SU717068 Three records at SU717084 Single record at SU718084 Single record at SU718091 Single record at SU720090 Single record at SU722089 Single record at SU723086 Two records at SU724087 Single record at SU724088 Single record at SU729077 19 records at SU731080	1500m W 1200m W 1170m W 1120m WSW Approx 1700m S 1570m SSW 1480m SSW 1140m S 1430m SSW 1170m SW 1520m NNW 1680m SSW 1000m SSW 1500m SSW 1630m S 360m NW 1400m S 220m NNW 200m N 900m N 820m N 810m NNE 640m NE 780m NE 850m NE 1200m ESE 1300m E
<i>(Pipistrellus pygmaeus)</i> Soprano Pipistrelle	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 D E	Single record at SU708077 Single record at SU710073 Three records at SU7106 Single record at SU711068 Single record at SU711069 Two records at SU711073 Single record at SU712069 Single record at SU712096 Single record at SU713073 Single record at SU716085 Single record at SU717097 Single record at SU718069 Single record at SU720090 Single record at SU723072 Single record at SU724096 19 records at SU731080	1120m WSW 1200m SW Approx 1700m S 1570m SSW 1480m SSW 1140m S 1430m SSW 1680m SSW 1000m SSW 360m NW 1500m N 1300m S 820m N 1120m SSE 1520m NE 1300m E
<i>(Plecotus)</i> Long-eared Bat species	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5	Single record at SU717097	1500m N
<i>(Plecotus auritus)</i> Brown Long-eared Bat	A C - Sch 5 Sec 9.4(b&c) C - Sch 5 Sec 9.5 D	Single record at SU702078 Two records at SU717095 Single record at SU722089 Five records at SU723093 Single record at SU724096 Single record at SU731080	1650m WSW 1300m N 810m NNE 1200m NNE 1520m NE 1300m E
<i>(Erinaceus europaeus)</i> West European Hedgehog	D	Single record at SU706076 Purbrook Way, Leigh Park, Havant	1340m WSW

- A. **Conservation (Natural Habitats) Regulations 2010** – Offence to damage, destroy or obstruct access to any place a bat uses for shelter or protection, whether it is occupied by bats at the time or not, or to disturb a bat whilst it is in such a place. It is also an offence to intentionally or recklessly kill, injure or handle a bat, or to possess a bat whether dead or alive.
- B. **Conservation (Natural Habitats) Regulations 2010** – Offence to intentionally or recklessly kill, injure, disturb or sell. Offence to intentionally or recklessly disturb, damage or destroy a breeding site or resting place, or to take or destroy eggs.
- C. **Wildlife & Countryside Act 1981** – The Wildlife and Countryside Act consolidates and amends existing national legislation to implement the Bern Convention and the EU Birds Directive in Great Britain. Various amendments have been made to the Act, e.g. in the Countryside and Rights of Way (CROW) Act 2000.
- Schedule 5 (protected animals, other than birds) – The intentional or reckless killing, injuring, taking, possessing, disturbing or selling, of animals listed in Schedule 5 is prohibited, along with the damaging or disturbing of the places used for their shelter or protection. Protection of some species is limited to certain sections:
- Section 9.1 – Limited to intentional killing, injury or taking.
 - Section 9.4a – Limited to damaging, destroying or obstructing access to any structure or place used by the animal for shelter or protection.
 - Section 9.4b – Limited to disturbing an animal whilst it is occupying any structure or place used for shelter or protection.
 - Section 9.4c – Limited to obstruction of access to any structure or place which any such animal uses for shelter or protection.]
 - Section 9.5 – Limited to selling, offering for sale, possessing or transporting for sale or advertising for sale of any live or dead animal, part of or derived from.
- D. **UK Biodiversity Action Plan Species.** UK Biodiversity Action Plan Priority species and Species of Principal Importance. The UK Biodiversity Action Plan lists Priority species for conservation in the UK. The species list was reviewed and extended in 2007. The list of Species of Principal Importance was originally published under Section 74 of the Countryside and Rights of Way Act 2000, and carried forward into Section 41 of the NERC Act 2006.
- E. **Hampshire Biodiversity Action Plan Species.** These are species that have been selected by a Local Panel comprising representatives from Natural England, Hampshire and Isle of Wight Wildlife Trust and Hampshire County Council Ecology Group for targeted conservation action at a local level.

The desk study identified a number of Wildlife and Countryside Act 1981 Schedule 1 Part 1 birds (which provides additional protection against disturbance whilst nesting), within the study area.

This included kingfisher (*Alcedo atthis*), marsh harrier (*Circus aeruginosus*), little ringed plover (*Charadrius dubius*), merlin (*Falco columbarius*), peregrine (*Falco peregrinus*), hobby (*Falco subbuteo*), brambling (*Fringilla montifringilla*), white-tailed eagle (*Haliaeetus albicilla*), mediterranean gull (*Larus melanocephalus*), common crossbill (*Loxia curvirostra*), red kite (*Milvus milvus*), whimbrel (*Numenius phaeopus*), honey-buzzard (*Pernis apivorus*), black redstart (*Phoenicurus ochruros*), black-necked grebe (*Podiceps nigricollis*), firecrest (*Regulus ignicapilla*), green sandpiper (*Tringa ochropus*), redwing (*Turdus iliacus*), fieldfare (*Turdus pilaris*) and barn owl (*Tyto alba*).

The desk study also identified a number of UK Biodiversity Action Plan and Country Scarce invertebrates (*Lepidoptera*) within the study area. All were recorded within Staunton County Park, approximately 500m to the north of the site.

4.1.4. Water body Search

Ordnance Survey maps and aerial photographs were examined and no water bodies was identified within 500m of the site.

4.2. Field Survey Results

Flora and Habitats

The following habitats were recorded in line with the standard Phase 1 Habitat Classification (JNCC 2010) as present on the site. The following section should be read in conjunction with the Extended Phase 1 Habitat Plan within Appendix 9.4. In addition, where specific trees have been identified, the nomenclature used in the Tree Survey (Andrew Skeet 2015) to aid in cross referencing has been adopted.

No species of flora listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) or Biodiversity Action Plan priority species were observed within the proposed development site.

Scattered broad-leaved trees (A3.1): Scattered broad-leaved trees were present predominantly around the boundary of the site, to the east of the children's play area and in the south east corner of the site. In addition, trees were present centrally on the site, and a line of mature trees was located adjacent to the south side of the entrance track off Somborne Drive.

The trees around the boundary of the recreation ground were planted approximately 15 years ago, and comprises of a double avenue of early mature small leaved lime (*Tilia cordata*) and wild cherry (*Prunus avium*) on the west and north boundaries, and early mature field maple (*Acer campestre* *Elsrijk*) and bird cherry (*Prunus padus*) on the east boundary. Early mature poplar (*Populus x euroamericana*) and snowgoose cherry (*Prunus incisa x speciosa*) were also present, forming a double avenue on the south boundary.

The trees present in the area of the children's play area consisted of a group of mature trees with some early mature trees adjacent to the northern boundary. The mature trees present (photograph 6) included ash (*Fraxinus excelsior*), goat willow (*Salix caprea*), and plane (*Platanus* sp.), and formed a close group separating the children's play area from the main recreation ground. A further two mature ash trees were present adjacent to the south west corner of the children's play area, close to the hard standing tennis courts.

In the south east corner of the site was a further group of mature trees with both early mature and mature ash, copper Norway maple (*Acer platanoides*), plane, goat willow and silver birch. Slightly separate to the group to the north, was a mature horse chestnut (*Aesculus hippocastanum*), sweet chestnut (*Castanea sativa*) and lime. These trees were well established and of considerable amenity and biodiversity value. Extending along the southern boundary were a number of young and early mature trees, which included silver birch, oak, copper maple, and wild cherry. Some of these trees appeared to be self seeded and were in poorer condition than the remaining trees on the site.

Central on the site was a late mature horse chestnut and adjacent two mature lime trees (photograph 8). The trees were dominant on the site and hence of significant amenity value, and are likely to support a wide variety of invertebrates due to their age and size.

Located adjacent to the south side of the entrance track off Somborne Drive, was a line of mature hornbeam (*Carpinus betulus*) trees (photograph 2). The trees were generally in good condition with single stems and balanced crowns, and appeared to be subject to regular maintenance.

Scattered coniferous trees (A3.2): A small number of coniferous trees were present on the site. An early mature giant redwood (*Sequoiadendron giganteum*) was present at the north east corner of the tennis courts close to the children's play area. The tree was in good condition and being in a prominent position, had a high amenity value. A number of laurel trees were also present a short distance to the north, amongst the group of mature deciduous trees to the east of the children's play area.

In addition, a single mature Lawson cypress (*Chamaecyparis lawsoniana*) was present on the southern boundary close to the pavilion. This is an older long-established tree of low amenity value.

Amenity Grassland (J1.2): Typical managed short amenity grassland occurred across the site, forming the playing fields and amenity areas, and around the children's play area. The grassland consisted of typical species, which was dominated by perennial rye grass (*Lolium perenne*), fescue (*Festuca spp.*), cocksfoot (*Dactylis glomerata*) and bent (*Agrostis capillaries*), interspersed with herbs including frequent ground ivy (*Glechoma hederacea*), germander speedwell (*Veronica chamaedrys*), dandelion (*Taraxacum officinalis*), white clover (*Trifolium repens*), daisy (*Bellis perennis*), dock (*Rumex obtusifolius*), creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*) and occasional greater plantain (*Plantago major*), herb robert (*Geranium robertianum*), with rare cranesbill (*Geranium sp.*) and birds foot trefoil (*Lotus corniculatus*).

Intact hedgerow – species poor (J2.1.2): An intact species poor hedgerow was present along the northern site boundary, and around the adjacent bowling green on the western boundary.

The hedgerow along the northern boundary was subject to regular management, and was approximately 1.8m high. The hedgerow comprised of dominant beech (*Fagus sylvatica*) with occasional holly. Directly adjacent to the hedgerow just outside of the site boundary were a number of mature trees including lime, silver birch, hornbeam and plane.

The hedgerow around the bowling green, which formed part of the western boundary was again dominated by beech, with occasional holly. There was also established ivy (*Hedera helix*) growth along the base of the hedgerow and part way up the hedgerow.

Fence (J2.4): various fences were present around the boundary of the site. The fence along the southern boundary was a combination of sections formed from wire mesh, with a wooden panel fence behind at the bottom of the rear gardens of the adjoining houses. Further along the boundary was a wooden panel fence, with varying levels of ivy growth.

Around the hard standing tennis courts was a wire mesh fence, with an adjacent palisade fence forming the main western and first part of the northern boundary to the pedestrian entrance to the site off High Lawn Way. The fence along the eastern and remaining section of the southern boundary was primarily formed from wooden panels, in various condition and state of repair.

There were no significant vegetation communities associated with the fences around the site.

Wall (J2.5): A low wall was present at the site entrance from Somborne Drive, which ran along the base of part of the hedgerow adjacent to the bowling green. The wall was of standard brick construction, and in a good state of repair.

Buildings (J3.6): A single building was present on site. The pavilion was located centrally along the southern boundary, facing the interior of the recreation ground. The building was of modern construction, single storey with half hipped tiled roof with a cross gable to the north. The building is understood to have been constructed in the mid 1990's, from concrete blocks with an outer brick skin. The building contains changing rooms and toilet/shower facilities, along with a community room and kitchen.

Faunal Species

Badger (*Meles meles*): No evidence of badger activity was observed during the site survey and no records of badger were identified within the study area during the desk study.

No evidence of badger activity was observed during the site survey. No field signs to indicate either current or previous use of the site was identified. The interior site is not considered suitable given the lack of cover, dominance of short improved grassland and the urban location of the site giving rise to high level of disturbance and lighting.

The wider area is also considered not to be suitable for use by badgers, given the immediate urban area. The distance to the nearest suitable habitat is likely to be in excess of 500m to the north, in the area of Staunton Country Park, and there is no suitable connected habitat that would allow badgers to reach the site.

Therefore, it is concluded that the likelihood of badger setts being present within the site is negligible according to the criteria in Section 3.4.

Reptiles: The desk study identified two records of adder within the study area, both located 450m to the north of the site at Staunton Country Park. No other records of reptiles were identified during the desk study, and no reptiles or evidence of reptiles were identified during the site survey.

The site is considered largely unsuitable for reptiles, given the working area is composed predominantly of short improved grassland, hard standing and buildings, which offers little cover or foraging opportunities for reptiles. In addition, the site is subject to high levels of disturbance arising from the use of the recreation ground, and the likely presence of a high number of domestic animals which predate on reptiles, particularly slow worm.

The wider area surrounding the site is also considered largely unsuitable for reptiles, given the high density of housing and road network, although it is possible that small populations of slow worm in particular may be present in discrete areas. However, given the lack of habitat connectivity, should such populations exist they are highly unlikely to reach or use the site.

Therefore, overall the likelihood of reptile presence within the site or working area is considered to be negligible, according to the criteria in Section 3.4.

Great Crested Newt (*Triturus cristatus*): No records of great crested newts were identified within the study area, and no ponds were identified within 500m of the site. In addition, the habitat on site, being comprised of short amenity grassland and areas of hard standing, was not considered suitable for use by great crested newts. Hence the likelihood of great crested newts being present in the proposed working area is considered negligible according to the criteria in Section 3.4.

Birds: Both the trees across the site and boundary hedgerow along the northern boundary contained habitat suitable for bird nesting to occur. The hedgerow along the northern boundary was considered particularly suitable, as was the more dense vegetation within the groups of trees east of the children's play area and in the south east corner of the site. No evidence of redundant nests was recorded during the survey, although a small number of common bird species were identified during the survey, none of which have statutory or non-statutory protection.

The desk study identified a number of Wildlife and Countryside Act 1981 Schedule 1 Part 1 birds (Section 4.1.3), UK Biodiversity Action Plan or Hampshire Biodiversity Action Plan species within the study area, all of which were recorded to the north of the site at Staunton Country Park. None of these

species are likely to rely on any of the areas of habitat within the site that will be impacted by the proposals, as most have specific habitat requirements.

Given that the proposals require that a small number of small trees are to be removed, together with the potential proximity of the work to a number of the other trees on site, there is a risk of indirect impact or disturbance to individual nesting birds, although it is assessed as highly unlikely to result in any impact upon the conservation status of birds in the local area. However, all nesting birds, their nests, eggs and young receive legal protection under the Wildlife and Countryside Act 1981 (as amended).

Common Dormouse (*Muscardinus avellanarius*): No records of common dormouse were identified within the study area and no signs of dormouse presence were found during the site survey.

Given the work confined to the location of the existing buildings and areas of hard standing, the site is not considered to offer any suitable habitat for common dormouse. In addition, the northern boundary hedgerow and the hedgerow around the adjacent bowling green were insufficiently diverse, and lacked any hazel or successional fruiting species required by dormice. Hence, it is considered that the likelihood of finding common dormice is negligible according to the criteria in Section 3.4.

Bats (*Chiroptera*): The desk study identified records of serotine (*Eptesicus serotinus*), Bechstein's bat (*Myotis bechsteinii*), whiskered bat (*Myotis mystacinus*), natterer's bat (*Myotis nattereri*) lesser noctule (*Nyctalus leisleri*), noctule bat (*Nyctalus noctula*), Nathusius's pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*) and brown long-eared bat (*Plecotus auritus*).

The closest record was for a single common pipistrelle recorded 200m to the north of the site, with a further three records of common pipistrelle 220m to the north northwest. Further records of common pipistrelle and soprano pipistrelle were identified 360m to the north west. All the remaining records of bat species were in excess of 500m from the site, with the vast majority over 1000m from the site, mostly located in Staunton Country Park. In addition, a small number of rarer bat species were identified within the study area, including Nathusius's pipistrelle and Barbastelle bats, although their proximity to the site could not be fully identified given the lack of resolution available.

All external elevations of the pavilion (Building 1) on the southern boundary was carefully inspected for signs of current use by bats, together with a thorough inspection of the roof area using high powered binoculars. A thorough internal inspection of the interior roof space of the pavilion was also conducted. The building was of modern purpose built construction, single storey with half hipped tiled roof with a cross gable to the north. The building is understood to have been constructed in the mid 1990's, and was built from internal concrete blocks with an outer brick skin. The brickwork was in good condition with all pointing intact, with no potential access points into the wall cavity. The walls had small uPVC windows with security doors fitted with metal shutters.

The eaves had exposed timber on the underside with the plywood roof sarking laid directly on the roof timbers. The space between the timber joist and the wall plate was sealed with a plastic mesh, preventing any access to the interior roof space from under the eaves. The roof of the building was half hipped, with a cross gable extending northwards to the front of the building. The gable elevation above ceiling height was clad with uPVC sheeting, and hence lacked any cracks or openings that could be used by crevice dwelling bats. The roof was clad with wavy clay tiles, with edging tiles running over the gable forming integral bargeboards. The roof was examined using binoculars and all roof tiles found to be in place and intact with no gaps identified that could be used by bats.

Internally, the entire roof space was accessed through a central hatch, and hence could be thoroughly examined. Part of the roof space was in use for storage of furniture at the time of the survey. The loft floor and walls were examined for evidence of bat droppings or feeding remains (particularly butterfly &

moth wings) and none were identified. The insulation present on the floor of the roof space would have allowed easy identification of bat droppings or feeding remains should they have been present (photograph 12). As the roof was half hipped on the east and west elevations, there was limited internal brickwork, with just the cross gable present on the north elevation. The gable wall was of concrete block construction, and heavily covered in cobwebs and debris. A complex timber supporting structure was present in the roof space, which would make for a cluttered flight space, and hence considered to be suboptimal for many species of roof void dwelling bats.

The inside eaves and ridge were extensively covered in cobwebs, with dense dust and debris throughout the loft floor, which had a thick layer of insulation beneath. The insulation ran up the eaves sealing any potential access points into the roof space from outside. The plywood sarking boards were visible on the underside of the roof and were in good condition throughout with no gaps or openings that could allow entry by bats.

No evidence of use of the loft space by bats was identified, and no points of entry were identified. No internal suitable crevice features were found and given the lack of potential entry points, there was no evidence of use of the roof space by roof void dwelling bats, particularly those such as brown long eared bats (*Plecotus auritus*). Hence the likelihood of bat presence in the pavilion is assessed as negligible, according to the criteria in Section 3.4.

All the trees within the proposed working area were then inspected for their suitability to support roosting bats, with a brief assessment of the trees in the wider site also conducted. Particular focus was given to the trees that require removal to facilitate the proposed work. These comprise of six trees located in the area of the car park that will need to be removed to facilitate the car park extension (Target note 3/ Photograph 3).

The trees present in the area of the children's play area consisted of a group of mature trees with some early mature trees adjacent to the northern boundary. The mature trees, which consisted of three ash trees, two goat willow, and three plane trees, all had a small number of features that could be used by bats, including some surface cracks and loose bark (Target note 1). However, the features were close to the street lighting of High Lawn Way, and many were obscured by the adjacent laurel trees. Hence these trees were assessed as having a low potential for use by bats (Category 2, Hundt L 2012). A further two mature ash trees were present adjacent to the south west corner of the children's play area, which had no features that were considered suitable for use by bats, and hence had a negligible likelihood of use by bats (Category 3, Hundt 2012).

Located adjacent to the south side of the entrance track off Somborne Drive, within the proposed working area, was a line of mature hornbeam trees. The trees were generally in good condition with single stems and balanced crowns, although as it is common with managed hornbeam there were some small areas of loose bark and contorted stems (Target note 2). However again the trees were located adjacent to the street lighting along the access track and car park, and were subject to high level of disturbance from the adjacent properties. Hence these trees were assessed as having a low potential for use by bats (Category 2, Hundt L 2012).

All of the remaining trees within the proposed working area were generally intact and in good condition, being immature and hence not of sufficient age to form cracks and fissures used by bats. These include the trees around the boundary of the recreation ground which were planted approximately 15 years ago, and the trees that require removal. The six trees that require removal to facilitate the car park extension were all in the early mature size class and hence not suitable for use by roosting bats (Target note 3), and hence considered to have a negligible potential (Category 3).

Outside of the working area but within the site boundary was a late mature horse chestnut and two adjacent mature lime trees (Target note 4), located centrally on the site, a short distance from the proposed new all-weather sports pitch. The trees contained large amounts of loose bark and a number of cracks and fissures, which appeared to be the result of decay and the presence of dead wood. In addition, the trees are likely to support a wide variety of invertebrates due to their age and size, and hence provide some foraging opportunities, although this is limited by their isolated position. Hence the three trees were assessed as having a moderate likelihood of being used by roosting bats (Category 1).

Internally the short amenity grassland offers little foraging opportunities for bats. However, the mature trees on the site, in particular those along the northern and eastern boundaries, may offer some significant foraging opportunities for bats. There is also the potential for bats to use the boundaries of the site for commuting, and although the boundary will not be directly affected by the proposals, the additional disturbance and lighting has the potential to impact on the wider population. Of particular concern is the use of floodlighting on the new-all weather sport pitch, and the potential for floodlight on the multi use games area. Research has found that bats are sensitive to artificial lighting and that excessive lighting can cause bats to move away from suitable foraging grounds to alternative dark areas (Jones 2000).

Stag Beetle (*Lucanus cervus*): The desk study identified nine records of stag beetle within the study area. The closest record was located 200m to the south of the site, with the remaining records all in excess of 750m to the south and east.

No evidence of stag beetles utilising the site was found during the survey. Stag beetle larvae occupy moist dead wood, usually below ground, in tree stumps, large fallen logs or occasionally fence posts. It usually takes 3 to 5 years for stag beetles to reach maturity and hence they need to remain undisturbed over this period. There was no loose or dead wood identified anywhere on the site.

However, it was considered that the trees, shrubs and nearby houses could provide sheltered habitat for adult stag beetles during early summer.

Moths/ Butterflies (*Lepidoptera*): The desk study identified a number of UK Biodiversity Action Plan and Country Scarce *Lepidoptera* within the 1km grid square of the site, although all were recorded within designated Sites of Importance for Nature Conservation. As the site is predominantly short improved grassland, hard standing and buildings, there is an absence of suitable habitat and hence the likelihood of their presence is considered negligible.

Hedgehog (*Erinaceus europaeus*): Internally the site was not considered suitable for use by hedgehog. However the habitat close to the northern, eastern and eastern boundary of the site was generally suitable for hedgehogs, although no signs of hedgehog were noted.

Other Protected Species: No other protected or priority species were found during the survey. The proposed working area does not support habitat considered suitable for water vole (*Arvicola amphibius*), otter (*Lutra lutra*), or white-clawed crayfish (*Austropotamobius pallipes*). The absence of water bodies make it unlikely that significant numbers of common toad (*Bufo bufo*) or common frog (*Rana temporaria*) could be present.

Invasive Species: No invasive species which are listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were identified during the survey.

5.0. Legislative and Planning Context

5.1. Legislation and Policy

5.1.1. The Conservation of Habitats and Species Regulations 2010

The Conservation of Habitats and Species Regulations 2010 transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. All bat species together with otters, dormouse and great crested newts are listed under Schedule 2 and hence are protected by Regulation 39 as below.

39. 1) It is an offence—

- (a) deliberately to capture or kill a wild animal of a European protected species;
- (b) deliberately to disturb any such animal;
- (c) deliberately to take or destroy the eggs of such an animal; or
- (d) to damage or destroy a breeding site or resting place of such an animal.

(2) It is an offence to keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of a European protected species, or any part of, or anything derived from, such an animal.

(3) Paragraphs (1) and (2) apply to all stages of the life of the animals to which they apply.

5.1.2. Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CROW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive). Animals listed under Schedule 5, including all species of bats and reptiles, receive full or partial protection under Section 9. Further details on the provisions of Section 9 of the Wildlife and Countryside Act 1981 (as amended) are provided in Section 4.1.3.

All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), whilst they are actively nesting or roosting. Section 1 of the Act, makes it an offence to kill, injure or take any wild bird, and to intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built. It is also an offence to take or destroy any wild bird eggs. In addition, bird species listed under Schedule 1 of the Act receive extra protection. The Act states that 'it is an offence to intentionally or recklessly disturb any wild bird listed in Schedule 1 while it is nest building, or at (or near) a nest containing eggs or young, or disturb the dependent young of such a bird'.

The Wildlife and Countryside Act 1981 states that it is an offence to "plant or otherwise cause to grow in the wild" any plant listed in Schedule nine, Part II of the Act. This lists over 30 plants including Japanese knotweed, giant hogweed and parrot's feather.

¹ Please note that this legal information is a summary and intended for general guidance only. The information provided in this report constitutes the opinion of a professional ecologist and does not constitute legal advice. The original legal documents should be consulted for definitive information. Web addresses to the full text of these documents are given in Section 8.

5.1.3. Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) (Anon, 1995) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A list of national priority species and habitats has been produced with all listed species/habitats having specific action plans defining the measures required to ensure their conservation. Regional and Local BAPs have also been organised to develop plans for species/habitats of nature conservation importance at regional and local levels. Hedgehogs are listed on the National BAP.

5.1.4. Planning Context

The Biodiversity Action Plan species which the Government expects to be considered in planning applications are those listed in Section 41 (in England) of the Natural Environment and Rural Communities Act 2006. These are the species found in England which have been identified as requiring action under the UK BAP.

The National Planning Policy Framework (NPPF), published on 27 March 2012, sets out current government policy on biodiversity and nature conservation. This places a duty on the Planning Authority to make the effect of a development on protected species (and habitats) a material consideration when considering planning applications. The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development.

Within Havant, planning policy (Policy CS11 of the Havant Borough Local Plan (Core Strategy) and the National Planning Policy Framework 2012) sets out the requirements and priorities in relation to biodiversity and planning.

6.0. Ecological Evaluation and Identification of Potential Impacts

6.1. Designated Areas

No statutory designated sites were identified within the study area. Twelve non-statutory Sites of Importance for Nature Conservation (SINC) were identified within the study area, which are protected through the planning system in accordance with the National Planning Policy Framework.

The closest non-statutory site identified was Great Copse Havant Site of Importance for Nature Conservation (SINC) and designated Ancient Woodland (AW) located 126m to the north of the site. The site comprises of approximately 6ha of ancient semi-natural woodland. The next closest non-statutory protected site is Battins Copse, which lies 186m to the south of the site. Battins Copse is a Site of Importance for Nature Conservation also designated for its ancient semi-natural woodland. The next closest non-statutory site is High Lawn Site of Importance for Nature Conservation, 400m to the north of the site. High Lawn is designated as an area of agriculturally unimproved grassland, which due to the lack of fertiliser, results in a diverse flora and fauna. The remaining protected sites are all in excess of 500m from the site.

The non-statutory sites are considered to be of sufficient distance from the working area not be adversely affected, particularly given the distance from the site, the limited scale of the work and confined nature of the proposals. Therefore, no impact on protected sites is foreseen as a result of the proposals and no mitigation or further survey work is required.

6.2. Habitats

No rare or notable habitats are present and no habitats are considered to be Habitats of Principal Biological Importance on Section 41 of the NERC Act 2006. In addition, none are listed as Priority Species on the UK National BAP (UKBAP 2007) or are listed in the Hampshire Biodiversity Action Plan.

The wider site contained a number of mature and late mature trees, together with a significant number and variety of early mature native trees. The trees are likely to support a wide range of invertebrates and higher species, and are of considerable ecological and amenity value, particularly given their age and location in an urbanized area. Hence the mature and late mature trees are considered to have an ecological value at least the Local level (Appendix 9.6), with the early mature native trees of ecological value currently at the site level only.

However, the majority of the proposed working area comprised of short improved grassland, hard standing and the pavilion. Such habitats are common locally and considered to be of ecological value at the site level only.

6.3. Legally Protected or Priority Species

6.3.1. Floral Species

None of the floral species recorded during the survey are specifically protected by the Wildlife and Countryside Act (WCA) 1981 (as amended) or considered rare nationally or locally. In addition, none are listed as Priority Species on the National BAP (UK BAP 2007) or Hampshire Biodiversity Action Plan. The majority of the species identified are common locally and typical of the habitats identified.

6.3.2. Faunal Species

The anticipated ecological impact on faunal species as a result of the proposed work is detailed below.

- Given that the proposals require that a small number of early mature trees are removed, together with the potential proximity of the work to a number of the other trees on site, there is the potential for impact or disturbance to nesting birds.
- The six trees that require removal in order to facilitate the new car park were assessed as having a negligible likelihood of use by bats. However, the results from the desk study identified a significant number of records of bats in the study area, and given that the wider site has a number of both mature and late mature trees (including three that were assessed as having a moderate likelihood of use by bats), bats may use the wider site for foraging or commuting. Given the proposed incorporation new of floodlighting on the new-all weather sport pitch, and the potential for floodlight on the multi use games area, and that bats are sensitive to artificial lighting, there is the potential for a low level of disturbance to occur.

Artificial lighting can affect the feeding behaviour of bats, either by the attraction that light from certain types of lamps has to a range of insects; and also by the presence of lit conditions. Many insect species such as moths, craneflies, midges and lacewings are attracted to artificial light, particularly where the lamps emit a high ultra-violet component. Noctule, Leisler's, serotine and pipistrelle bats are known to swarm around white mercury and metal halide lights to feed on the attracted insects. However this is not the case for all bat species, as *myotis* species in particular tend to generally avoid artificial lighting. Artificial lighting is also likely to increase the risk of predation by birds, such as kestrels that are diurnal raptors. Artificial lighting also disrupts the normal 24-hour pattern of light and dark which is likely to affect the natural behaviour of bats. Bright light may reduce social flight activity and cause bats to move away from the light area (Jones 2000).

Illuminating a bat roost by floodlighting creates disturbance and may cause the bats to desert the roost. Light falling on a roost access point may delay bats from emerging and this shortens the amount of time available to them for foraging. As the main peak of nocturnal insect abundance occurs at and soon after dusk, a delay in emergence means this vital time for feeding is missed.

However, the floodlighting is more likely to be used during the winter when bats are hibernating and less active. The potential for impact on commuting bats is likely to be the greatest during March/April and September/October when bats remain active but dusk becomes earlier in the evening, when floodlighting is likely to be required into the peak emergence and foraging period. However, the use of flood lighting during the winter months is unlikely to have an effect on bat commuting or foraging, as bat will spend the majority of their time in hibernation over this period.

- Risk of encountering stag beetles should work take place during early summer (May to July).
- Risk of injury to hedgehogs should they be present.

7.0. Recommendations for Further Surveys, Mitigation and Enhancement

7.1. Recommendations for further survey work

Based on the results of the survey, desk study and current proposals no further ecology surveys are considered necessary. However should the scope of the work change, a further assessment maybe required.

7.2. Proposed Mitigation

No mitigation specifically related to the identified designated sites is considered necessary.

7.2.1.Habitats and Flora

The proposals require the removal of six early mature trees to facilitate the construction of the car park extension (Photograph 3). In addition, the site contained a number of mature and late mature trees, together with a wider number of a variety of early mature native trees. Although no work to any mature or late mature trees is proposed, these trees were assessed as being of ecological significance at the Local level, and hence should be protected during the work. There is the potential for impact to occur to the roots of individual trees, or from inadvertent damage to the trunk or branches.

Hence, in accordance with the submitted Tree Survey (Andrew Skeet 2015), measures should be implemented to ensure that individual trees are adequately protected. Therefore, as described in the Tree Survey ((Andrew Skeet 2015), it will be necessary to establish a root protection area (RPA) to protect the tree roots as described in BS5837:2012 "Trees in relation to design, demolition and construction" (British Standards Institution 2012). In addition, it is recommended all contractors are instructed to follow standard best practice for working close to trees, particularly in order to avoid damage to root systems and protect the existing trees.

7.2.2.Protected Species

Nesting birds: The proposals require that a small number of early mature trees are removed, together with the potential proximity of the work to a number of the other trees on site Hence, there is the risk of both direct impact and/or disturbance to individual nesting birds, particularly during the initial installation and set up work. All nesting birds, their nests, eggs and young receive legal protection under the Wildlife and Countryside Act 1981 (as amended). Therefore, the work should take place outside the bird-nesting season (mid March to August inclusive).

If it is not possible to undertake the work outside of the bird nesting season, all vegetation in the vicinity of the working area should be checked by a qualified ecologist for wild nesting birds, their eggs, nests or young before work is permitted to commence. Should nesting activity be detected, all work should stop at that location. The work will need to be rearranged until all young birds have fledged or nesting activity ceases.

Bats: Although none of the trees that require removal in order to facilitate the proposals were assessed as having a negligible likelihood of use by bats, there is the potential for disturbance to occur to any bats that may use the wider area, or along the site boundaries for commuting or foraging, particularly from the use of the proposed new floodlighting. It is recommended that the mitigation measures below are implemented.

- The impact on bats arising from the floodlighting should be minimised by the use of specific UV filters on the proposed metal halide lamps. An alternative would be to consider the use of low UV lamps, such as low pressure sodium lamps, but these are unlikely to be suitable for a floodlighting application. Direct illumination of the boundary vegetation or adjacent mature or late mature trees must not be permitted.
- The floodlighting should be directed to where it is needed and light spillage avoided. Asymmetric beam floodlights (as opposed to symmetric) should be used that are orientated so that the glass is almost parallel to the ground to ensure that the light is cast in a downward direction and avoids horizontal spill. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvers and shields to direct the light to the intended area only (Jones 2000; Hundt L 2012).
- The lighting columns should be designed to achieve the required illumination that will enable light to be directed downwards at a sufficiently acute angle to reduce horizontal light spillage. It is recommended that a computer model is used to predict the level of external light spillage, based on different lamp and column designs, so that a design can be developed that guarantees the minimum light spillage.
- The use of the floodlighting should be minimised, particularly during late spring and early autumn, when bats are active but dusk is at a time in the evening when use of the floodlighting is likely to coincide with the peak emergence and foraging period.
- The individual flood lights should be individually controllable, so that only the floodlights for the area in use should be illuminated. In addition, the number of floodlights illuminated should be sufficient, but not exceed, the minimum required lighting level.
- To minimise the impact on bats that may use the boundary vegetation and trees for commuting or foraging, it is recommended that construction activities between March and October inclusive should only be undertaken during daylight hours.

Stag beetles: Results from the desk study suggest that stag beetles may be present in the vicinity of the site; however the absence of any suitable habitat indicates that stag beetles are not breeding on the site. However, it is considered that the trees, shrubs and nearby houses could provide sheltered habitat for adult male stag beetles to fly during early summer (between May and July) as they search for females to mate. Hence the following mitigation is recommended.

- Should work take place between May and July, the site team should be briefed on the potential presence of stag beetles within the site and informed to avoid them should they be encountered and to allow them to escape unhindered. Should they be found upside down, they should be carefully turned over using fingers, a twig, or paper and then be allowed to move away.
- Water containers used during construction should be covered or an access provided to allow stag beetles to escape should they inadvertently land in the water, which is common during the adult flying season (May to July).

Hedgehogs: The working area should be checked for the presence of hedgehogs prior to work commencing. Should a hedgehog be found, it should be allowed to move away from the working area unhindered.

Care should be taken not to create habitat that could become suitable for use by hedgehogs, particularly for hibernation, by not storing wood or other material in piles for significant periods.

7.3. Recommended Ecological Enhancements

In accordance Sections 109 and 118 of the National Planning Policy Framework (NPPF) 2012, the Natural Environment and Rural Communities Act (2006) and Government Circular 06/2005 (ODPM, 2005), development proposals should seek to incorporate measures to further the conservation of protected species and biodiversity in general.

- Comprehensive replacement tree planting is proposed, using native tree species, which should be implemented in full.
- If possible, additional opportunities should be sought to increase the diversity of floral species on the site, particularly around the multi use games area and interior of the site. The planting should be based on using native species with known wildlife benefits and should seek to create a gradation of vegetation types that include native trees and shrubs and herb species. In particular, flowering plants will be of benefit to invertebrate species and shrubs and trees may provide nesting opportunities for birds.

It may also be possible to supplement the existing boundary vegetation, particularly along the western boundary by the proposed multi use games area and children's play area by interplanting with native species as honeysuckle (*Lonicera periclymenum*), dog rose (*Rosa canina*), guelder-rose (*Viburnum opulus*), rowan (*Sorbus aucuparia*), birch (*Betula pendula*), crab apple (*Malus sylvestris*), wild cherry (*Prunus avium*) or wild pear (*Pyrus pyraster*). Further advice should be sought if needed.

- To provide additional bird nesting habitat, at least five bird-nesting boxes should be attached either to the new pavilion, or mounted within trees within the site boundary. The boxes should be of woodcrete construction, such as the Schwegler 1MR Avianex 1 box which is rot-proof and maintenance free. This will provide nesting opportunities for a range of bird species likely to use the site.
- If possible, it is also recommended that bat boxes such as Schwegler summer bat boxes (e.g. 1FF, 1FS, 2F and 2FN) and Bat bricks or bat tubes (e.g. Schwegler woodcrete Brick Box Type 27 for bats or 1FR Bat Tubes) could be installed within the pavilion to provide artificial roost sites for crevice-dwelling bat species. (<http://www.schwegler-natur.de>).

8.0. References

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- Hundt L (2012) *Bat Surveys: Good Practice Guidelines*, 2nd edition, Bat Conservation Trust
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- Natural England (2011) TCM6-21705 *Standing Advice Species Sheet: Great crested newts*. Natural England, Peterborough
- Stace, C. (1997) *New Flora of the British Isles* (2nd edition). Cambridge University Press, Cambridge.

Web addresses for access to full UK legislation and policy text:

Conservation of Habitats and Species Regulations 2010:
http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1

Habitats Directive: www.europa.eu.int/eur-lex/en/lif/dat/1992/en_392L0043

Birds Directive: eur-lex.europa.eu/LexUriServ/site/en/consleg/1979/L/01979L0409-20070101-en

Wildlife and Countryside Act 1981:
www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1981/cukpga_19810069_en_1

Countryside and Rights of Way Act 2000: www.legislation.hmso.gov.uk/acts/acts2000/20000037

Natural Environment and Rural Communities Act 2006:
http://www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1

National Parks and Access to the Countryside Act 1949:
http://www.opsi.gov.uk/RevisedStatutes/Acts/ukpga/1949/cukpga_19490097_en_1

National Planning Policy Framework 2012:
<http://www.communities.gov.uk/documents/planningandbuilding/pdf/2116950.pdf>

UK Biodiversity Action Plan: <http://jncc.defra.gov.uk/>

9.0. Appendix

9.1. Site Photographs



Photograph 1: View along the site entrance looking east.



Photograph 2: View along the southern boundary adjacent to the car park.



Photograph 3: Trees (in the foreground) that will be removed to extend the car park.



Photograph 4: General view across the interior of the site.



Photograph 5: The existing hard standing tennis courts.



Photograph 6: The children's play area in the north west of the site.



Photograph 7: The northern boundary hedgerow.



Photograph 8: The large trees (Target note 7) located centrally on the site.



Photograph 9: View of the front northern elevation of the Pavilion.



Photograph 10. The rear southern elevation of the pavilion.

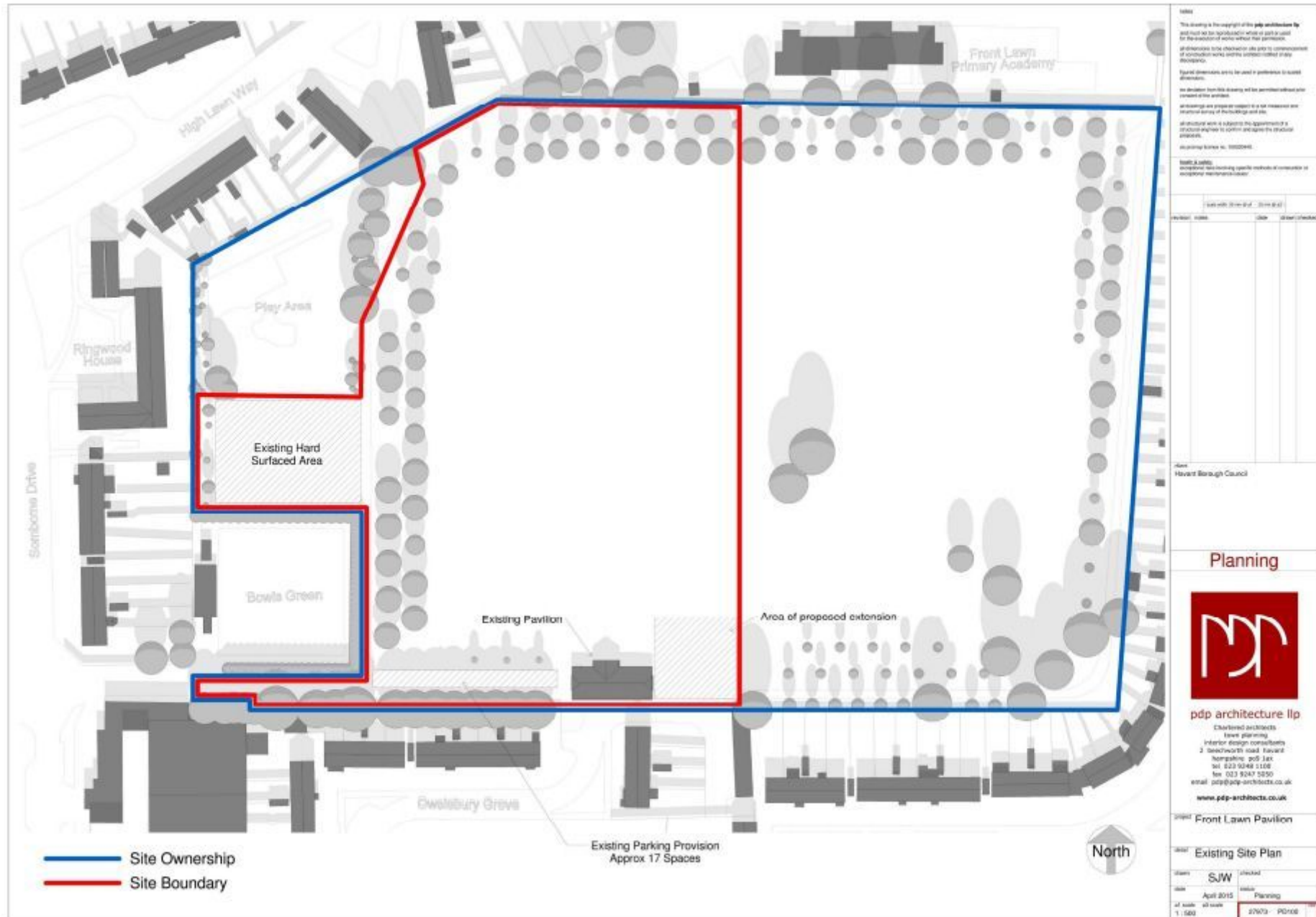


Photograph 11: View of the cross gable of the pavilion.

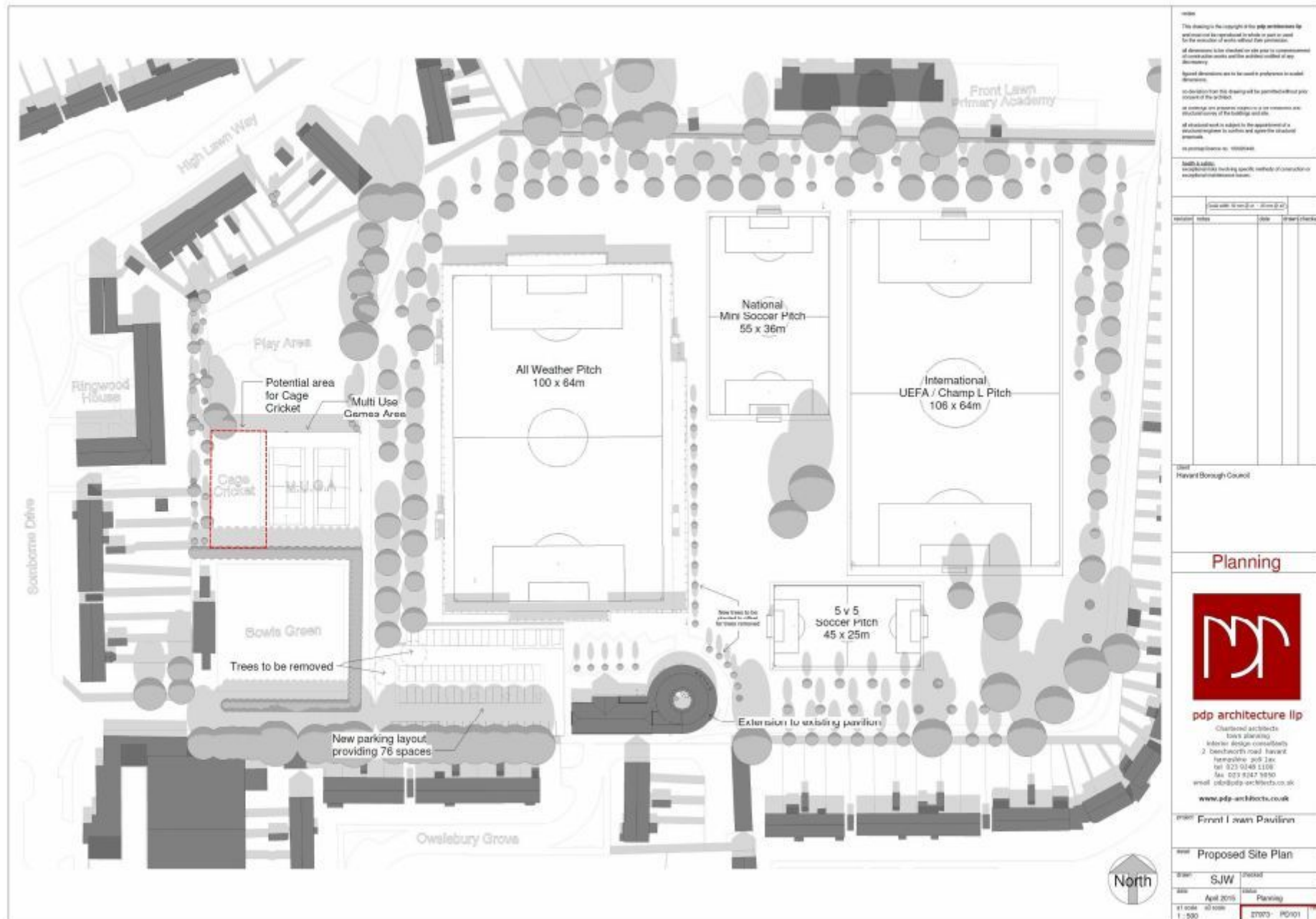


Photograph 12. The interior roof space.

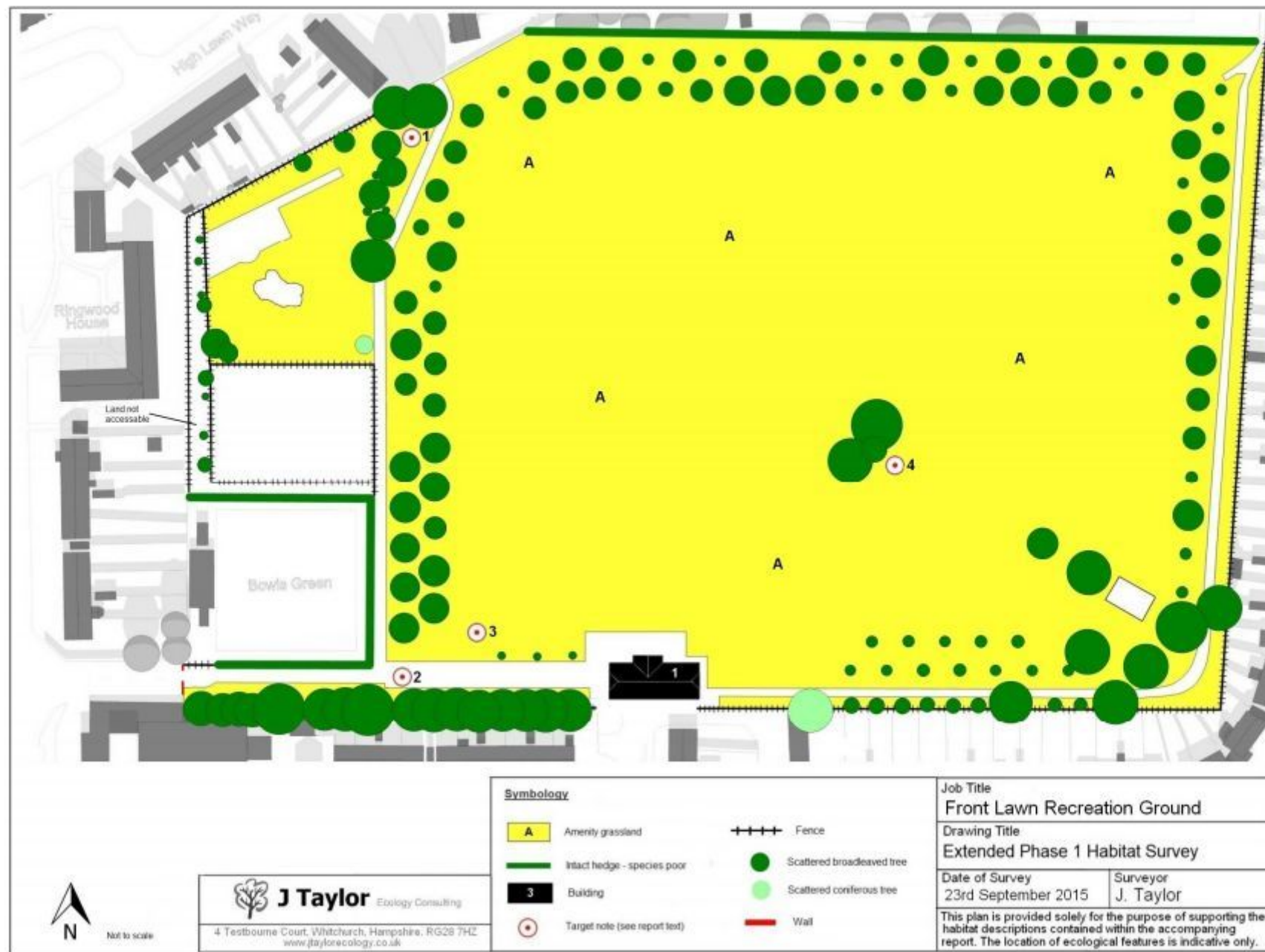
9.2. Existing Site Plan



9.3. Proposed Plan



9.4. Extended Phase 1 Habitat Survey Plan



9.5. Definitions of the Level of Habitat Value

Geographic level of Value	Definition
International	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species.
National	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan.
Regional	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SNCI criteria, but not exceeding SSSI criteria.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SNCI, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas.
District / Borough	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough.
Local	Undesignated Sites or features which appreciably enrich the habitat resource within the Parish or Neighbourhood.
Site	Habitat of value at the site level or immediate zone of influence only. Low grade and widespread habitat of negligible value.

9.6. Definitions of the Level of Species Value

Geographic Level of Value	Definition
International	Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP. A regularly occurring, nationally significant population/number of any internationally important species.
National	Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP). A regularly occurring, regionally or county significant population/number of any nationally important species.
Regional	Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; A regularly occurring, locally significant number of a regionally important species.
County / Metropolitan	Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan "red data book" or BAP on account of its regional rarity or localisation; A regularly occurring, locally significant number of a County/Metropolitan important species.
District / Borough	A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation; A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.
Local	Areas of habitat considered to appreciably enrich the habitat resource within the context of the Parish or neighbourhood, e.g. species-rich hedgerows. Local Nature Reserves selected on Parish ecological criteria.
Site	Low grade and widespread species.