

Worthing Hospital
Ecological Assessment Report

Western Sussex Hospitals NHS Trust

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Executive Summary

WSP Environmental undertook an ecological constraints study of the Worthing Hospital site in Worthing, West Sussex, NGR TQ153 032 in December 2008. The findings of the survey was used to inform master planning process for proposals to re-develop parts of the existing hospital site in order to deliver upgraded hospital facilities. Masterplans have now been developed for two separate re-development schemes which will deliver a new Breast Clinic with temporary car park, as well as a new ward.

This report describes the ecological baseline for the site and assesses the potential impacts to ecology which may arise from the two re-development schemes. This report also outlines recommendations for avoidance, compensation and enhancement measures to ensure that the scheme delivers biodiversity gain, in line with national Planning Policy Statement PPS9.

The baseline information for the site was obtained during a site walkover, undertaken on 3rd November 2008 and a desk study of designated and non-designated sites and species records from land within a 2km radius of the site. This was followed up by an internal building inspection for bats in February 2009.

The Worthing Hospital Site comprises predominantly hardstanding (car parking) and a variety of buildings including hospital wards, offices and residential housing. There are no statutory or non-statutory designated sites for nature conservation that fall within the potential influence of the scheme proposals.

The extent of ecologically valuable habitat on site is limited in size and geographical location and comprises;

- Individual mature trees (protected by a Tree Preservation Order) and small areas of plantation woodland at Site boundaries;
- Ponds located within atriums of the existing hospital building.

The two schemes involve a low level of habitat loss, relating to felling of mature and immature trees, which can be readily compensated for through new planting with native species. No ponds will be impacted by the schemes.

It is recommended that mature trees with the potential to support roosting bats are subjected to pre-felling inspections to ensure that there are no adverse impacts to roosting bats, and that all vegetation removal takes place outside of the nesting bird season (which generally runs from March – July inclusive).

Retained trees that are close to construction activities should be safeguarded with protective fencing in accordance with BS5837:2005 ‘Trees in relation to Construction’.

In order to compensate for tree loss, new native species planting is recommended within soft-landscaping areas. In addition, it is recommend that a small number of bat boxes are erected within retained trees along the northern and western boundaries of the new Breast Clinic site, to ensure continuity of available tree roosting resource whilst new planting becomes established.

The proposed landscape buffer zones around the perimeter of the new Breast Clinic site, as well as along Homefield Road adjacent to the proposed new ward block, present opportunities for ecological enhancement through wildlife habitat creation and recommendations within this report include creation of wildflower areas, log piles and even wildlife ponds, to deliver biodiversity enhancement and create a ‘wild space’ resource for use by the Trust in line with the Faculty of Public Health’s recent report on the use of green space to improve wellbeing (Faculty of Public Health, 2010).

The need to obtain BREEAM Excellent ratings is likely to identify such enhancement opportunities in order to secure the necessary credits.

1 Introduction

1.1.1 WSP Environmental Limited has been commissioned by Western Sussex Hospitals NHS Trust to provide an Ecological Assessment of the re-development proposals for the Worthing Hospital Site in Worthing, West Sussex, NGR TQ153 032. The entire hospital site is hereafter referred to as the 'Site'.

1.1.2 This report identifies the key ecological constraints within the hospital and surrounding area, an assessment of the potential ecological impacts of the re-development proposals and recommendations for avoidance, compensation and enhancement measures where appropriate.

1.1.3 The re-development proposals comprise two separate applications, both of which fall within the overall hospital site, and both of which are assessed within this report. Planning application '1' involves the development of a breast clinic and temporary permeably-surfaced car park on the Homefield end of Park Avenue, whilst planning application '2' involves the development of a ward block immediately south of the existing children's unit, with associated landscape planting along Homefield Road adjacent to the east of the new ward block.

2 Methodology

Baseline surveys

2.1.1 A data search with Sussex Biological Records Centre (SxBRC) was commissioned in November 2008, which returned records of protected species and habitats from a 2km search area surrounding the hospital Site.

2.1.2 In addition the Environment Agency, Natural England, West Sussex County Ecologist and Worthing Borough Council were all contacted for any data or comments they may have relating to ecology and nature conservation in the 2km search area. Worthing Borough Council provided a copy of a Tree Preservation Order (discussed in section 3), the remaining consultees confirmed that SxBRC contained all of the relevant species and habitat data and did not have any further data or comments at this stage.

2.1.3 A site walkover was completed on 3rd November 2008 by Angela Bond, a Senior Ecologist from WSP Environmental and a full Member of the Institute for Ecology and Environmental Management during which ecologically important features were recorded.

2.1.4 An internal bat inspection was undertaken during February 2009 of buildings with the potential to support roosting bats. The full methodology for these surveys are reported within the separate bat report, included as Appendix C of this report.

2.1.5 The baseline information gathered during the 2008 and 2009 surveys has been used for the purposes of an ecological assessment of the scheme proposals. This baseline data is considered to be sufficiently current to ensure a valid assessment because it is less than two years old and because the management and occupancy of the site has not changed since the time of the surveys.

Reporting

2.1.6 Potential ecological constraints to re-development of the Site are shown on Figure 1 and designated sites and species records are discussed in section 3 below. Selected data provided by SxBRC is provided within Appendix A.

Assessment of Ecological Impacts

2.1.7 The information from the above surveys and desk study has been used to undertake an assessment of ecological impacts. The assessment has been performed with reference to the Institute of Ecology and Environmental Management's '*Guidelines for Ecological Impact Assessment in the United Kingdom*' (2006), whereby the construction and operation activities have been assessed with regard to their likely impact on valuable or vulnerable ecological features. Any direct, indirect and cumulative impacts have been assessed, and the geographical scale at which they are significant has been noted.

2.1.8 Mitigation recommendations have been made and the residual impacts of the proposed development stated. Opportunities for ecological enhancement have been identified, where appropriate, in order to fulfil national policy requirements.

3 Baseline Information

3.1 SITE DESCRIPTION

3.1.1 The majority of the Site comprises hardstanding (car parking) and a variety of buildings including hospital wards, offices and residential housing. A number of mature trees are present along the Site boundaries and amenity landscape planting has been undertaken around the majority of the hospital buildings. There is a small amount of improved (amenity) grassland within one area of open space within the hospital and in residential gardens on the Site. The majority of the planted trees and shrubs present on site are non-native species.

3.2 DESIGNATED SITES

Statutory Designated Sites

3.2.1 No statutory designated sites are present within 2km of the hospital. The nearest statutory designated site is the Sussex Downs proposed National Park and Area of Outstanding Natural Beauty (AONB), which is just over 2km north of the hospital. Potential impacts to the Sussex Downs would not occur as a result of proposed re-development of the hospital Site. This is because the proposals are geographically confined to the existing hospital site within the urban area of Worthing and the proposals relate to the upgrading of existing facilities (and therefore would not bring about a change in use of the Site).

3.2.2 There are no other designated sites of local importance within or immediately adjacent to the Site boundary.

Locally Designated Sites

3.2.3 There are no locally designated sites within or immediately adjacent to the Site boundary.

3.2.4 The data search confirmed that there are two locally designated Sites of Nature Conservation Interest (SNCIs) within 2km of the hospital, these are;

- The Lower Cokeham reedbed and ditches SNCI in Lancing (shown as Ad07 on the Designated Site Map in Appendix A). This is a 6.2 hectare area of reed-bed and tall fen that is bordered by wet ditches (linked to Teville Stream) and located on the edge of a heavily built up area. This site lies over 1km east of Worthing Hospital; and
- St. Michaels Graveyard SNCI (shown as W08 on the Designated Site Map in Appendix A). This is a small, 0.4 hectare, site completely surrounded by housing. It supports a wide range of flowering plants, grasses and scrub. This site lies over 1.5km west of Worthing Hospital.

3.2.5 There is no potential for ecological impacts to either SNCI as a result of the proposed redevelopment works at Worthing Hospital. This is due to the large distances between the hospital Site and the SNCI's. The SNCIs are not adjacent to trunk roads which could potentially experience increased construction and/or operational traffic, neither are the SNCIs geographically linked to the hospital Site (for example by semi-natural habitats or landscape features).

Non-designated Habitats of Potential Ecological Interest or Sensitivity

- Five ponds were identified by the Sussex Biodiversity Record Centre to be within 2km of the hospital Site. These are all at a distance greater than 500m from the hospital Site boundary and occur to the south and the east of the hospital. These ponds are shown on the Habitat Map in Appendix A.
- A small stream known as Teville Stream is present approximately 1km east of the hospital (see the Habitat Map in Appendix A for the location of this stream).

3.2.6 None of these features are close to the hospital Site or geographically connected to them in any way.

Tree Preservation Orders Relevant to the Site

3.2.7 A Tree Preservation Order (TPO) exists for the Site. This is TPO Number 12, dated 1992. The TPO lists 31 individual trees and five groups of trees encompassing a variety of native and non-native tree specimens, all of which have been planted. Approximately 1/3rd of the individual listed trees are no longer present on the Site and one of the five groups of trees has also been removed. This tree loss was associated with the expansion of the Hospital in the 1990s. The remaining trees listed under the TPO are all mature specimens. A full copy of the TPO is located in Appendix B.

3.3 ECOLOGICALLY VALUABLE FEATURES

3.3.1 The following habitats present within the Site were recorded as being of ecological importance or potential ecological importance.

Mature Trees and Narrow Plantation Woodland Strips

3.3.2 A number of very mature trees are present on the Site, which are subject to a TPO. These include common lime (*Tilia x europaea*), yew (*Taxus sp*.), planes (*Planus sp*.), beech (*Fagus sp*.), holm oak (*Quercus ilex*) and two Monterey cypress (*Cupressus macrocarpa*). Along the northern boundary, where the hospital boundary adjoins Homefield Park, the mature trees form part of a plantation woodland habitat containing semi-mature and some self-seeded immature tree species including sycamore (*Acer pseudoplatanus*), silver birch (*Betula pendula*) and ash (*Fagus sylvatica*) along with naturalised and native ground cover species such as winter heliotrope (*Petasites fragrans*) and ground elder (*Aegopodium podagraria*). The mature trees and plantation woodland are located predominantly around the Site boundaries and within a small area of open space present in the west of the Site. The approximate location of these trees and woodland is marked in red on Figure 1, and the TPO information is included at Appendix B. Further information is also included in the Arboricultural Development Statement report, submitted separately in support of the planning applications.

3.3.3 Although many of the planted trees do not comprise native species, they do provide micro-habitats of some value to native wildlife, and have the potential to support invertebrates, nesting birds, and in some instances, roosting bats. The narrow strips of planted trees forming plantation woodland habitat create a semi-natural habitat corridor which would be expected to facilitate the movement of wildlife along the Site boundaries.

Ponds

3.3.4 At least two man-made ponds were observed within atriums of the main hospital building and it is possible that further ponds are present in some of the other atriums (not all atriums were observed during the constraints walkover). These atriums were not accessed during the constraints walkover.

3.3.5 Despite their apparent isolation, it is possible that these ponds may support native amphibian species such as newts, frogs and toads, which can be introduced into isolated ponds via vegetations, birds and other vectors. These ponds would require investigation should the redevelopment proposals alter such that they could be impacted by the works.

Buildings with Potential to Support Bats

3.3.6 There are a total of 26 houses and 5 blocks of flats on the hospital Site that are of an appropriate construction type, age or condition to hold the potential to support bats. These are all residential buildings and include the row of semi-detached houses along Park Avenue in the north of the Site, the collection of terraced and semi-detached houses directly west of Greenacres and Homefield and the flats at Horton Court and Lister House.

3.3.7 Of these buildings, the 16 dwellings along Park Avenue in the north of the Site will be directly impacted by the re-development proposals for a new Breast Clinic and for this reason, inspection surveys for bats has been undertaken and are reported in Appendix C. No evidence of roosting bats was observed.

Species

3.3.8 Given the habitats that have been recorded above, and the records provided by SxBRC, the Site contains the potential to support the following protected or UK Biodiversity Action Plan species:

3.3.9 **Bats**: Although the hospital Site is located in an urban setting, it supports mature vegetation which would provide dark flight corridors and is in close proximity to areas of open space including Homefield Park, which would provide good foraging grounds for some species. In addition, some of the residential buildings on site have been identified as potentially suitable for roosting bats, due to the presence of features such as roof voids (although further surveys have proven that bats are absent from the houses along Park Avenue). Furthermore, at least five species of bats have been recorded from within 2km of the Site (SxBRC, 2008) (serotine *Eptisecus serotinus*, noctule *Nyctalus noctula*, pipistrelles *Pipistrellus sp*., including *Pipistrellus nathusii* and brown long-eared bat *Plecotus auritus*). For these reasons, the potential presence of bat activity (including roosting) across the Site cannot be ruled out without detailed inspection.

3.3.10 All species of bat and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and The Conservation (Natural Habitats, &c) Regulations 1994 (the

Habitat Regulations). This makes it illegal to kill, injure, capture or disturb bats or obstruct access to, damage or destroy bat roosts. Under the law, a roost in any structure or place used for shelter is protected. As bats tend to reuse the same roosts, the roost is protected whether the bats are present or not.

3.3.11 **Nesting Birds**: A limited amount of suitable habitat for nesting birds is present within trees and plantation woodland strips around the Site. A very large number of bird records have been returned from the 2km search area surrounding the hospital Site. These include records from Worthing shore and pier, a large area of rough grassland and reedbed at Sompting as well as the wider Worthing area. Although the exact location of bird records within the 2km search area is not known (grid references were not provided), the records of most relevance to the Site will be those for the more common garden bird species, due to the habitats present on the Site (buildings, mature trees and exotic and native shrub vegetation).

3.3.12 All species of wild bird and their nests are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000). This makes it illegal to kill, injure or take any wild bird or egg, and to destroy or damage or take the nest of any wild bird while that nest is in use.

3.3.13 **Slow worm**: The Site does not contain extensive habitat suitable for reptile species. However, the boundaries of the car park area in the south-west of the Site, provide some limited, sub-optimal slow worm habitat which could potentially support a very low number of individuals, although these areas are quite isolated and not connected to surrounding suitable habitat. The habitat on site is not considered suitable for other reptile species.

3.3.14 Slow worm have been recorded within a 2km radius of the hospital, including within an urban setting approximately 1 km east of the Site boundary. No other reptile records relate to the urban parts of Worthing.

3.3.15 All native reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) from intentionally or recklessly killing or injuring. In practice this means that a developer should take all reasonable steps to avoid the killing or injury of reptiles that might result from a development or associated activities.

3.3.16 **Amphibians –** including **great crested newt** and **common toad:** The ponds within the hospital atriums have the potential to support breeding amphibians, which could include great crested newt or common toad. No other potential terrestrial or breeding habitat for amphibians was recorded on site. However, it is understood that no works are proposed that would affect the atrium ponds and therefore impacts are unlikely.

3.3.17 Both great crested newt and common toad have been recorded in the local area. Common toad has been recorded from an urban area less than 0.5km from the Site, whilst great crested newt has been recorded from the reedbed habitats at Sompting, approximately 1km from the hospital.

3.3.18 Great crested newt are protected under the Wildlife and Countryside Act 1981 (as amended), and the Habitat Regulations from intentional killing, injuring or capturing (including young and eggs); intentional or reckless damage, destruction or obstruction of areas used by great crested newts for shelter or protection; and, intentional or reckless disturbance to great crested newts whilst they are occupying a structure or place that is used by them for shelter or protection.

3.3.19 Common toads are a UK BAP priority species and as such forms a material consideration in the planning process.

3.3.20 **Stag Beetle:** Suitable habitat for stag beetle exists in a very localised manner within the roots and dead wood habitats in the soil surrounding the mature trees and plantation habitat on site, especially where this is linked to the adjacent Homefields Park.

3.3.21 This species has been recorded in central Worthing and is a UK BAP priority species.

3.3.22 **Hedgehog:** Suitable habitat for hedgehog exists within residential back gardens, along plantation woodland strips and within the small area of open space in the west of the hospital Site. This species has been recorded very close to the hospital Site (potentially from Homefields Park, directly adjacent to the site).

3.3.23 Hedgehog is a UK BAP priority species and as such forms a material consideration in the planning process.

3.4 SUMMARY OF POTENTIAL SENSITIVE ECOLOGICAL RECEPTORS.

3.4.1 The Site is predominantly an active hospital site with very little existing open space or semi-natural vegetation and there are no overriding ecological factors which would prevent the redevelopment of the Site, provided that the potential constraints identified within this report are given due consideration and, where necessary, accommodated within the master planning process.

3.4.2 The following ecological features (marked on Figure 1) are considered to provide a constraint or potential constraint to the redevelopment proposals either due to the habitats they support or their potential for supporting protected or notable species that form a material consideration in the planning process:

- Individual mature trees and small areas of plantation woodland at Site boundaries;
- Ponds; and
- Planted boundary of car park area (sub-optimal to support slow worm).

3.4.3 In addition, the Site contains suitable habitat to support bats, nesting birds, hedgehog, and stag beetle.

4 Assessment of Potential Ecological Impacts - Planning Application 1: New Breast Clinic

4.1 OVERVIEW OF DEVELOPMENT PROPOSALS

4.1.1 The application involves the demolition of the existing residential properties at 33-63 Park Lane, followed by the construction of a temporary car park on the vacated site (which will be a permeable surface of reinforced grass) and the development of a Breast Clinic and permanent car park on the eastern half of the vacated site.

4.1.2 It is proposed to retain and enhance the existing boundary landscape treatment to maintain the buffer with Homefield Park.

4.1.3 Construction and operational access will be via Park Avenue.

4.2 POTENTIAL ECOLOGICAL IMPACTS

4.2.1 The application site comprises residential properties and their gardens. Due to the habitats present, the following potential ecological receptors have been considered during this impact assessment; mature trees, bats, nesting birds, hedgehogs and stag beetle.

Trees

4.2.2 An arboricultural survey has been undertaken by CBA trees (CBA, 2009) and a tree retention and felling plan has been produced for the application, enabling an accurate assessment of the scale of impacts to trees to be made.

4.2.3 The application site is bordered on two sides by Homefield Park and the boundary is planted with a row of mature trees, the majority of which are located just outside the application boundary. A 5m buffer zone has been incorporated into the application proposals to enable the retention of the boundary trees, meaning that the only tree loss resulting from the proposals involves trees within the existing residential gardens or trees in the boundary that are recommended for felling on health and safety grounds (termed category 'R' trees).

4.2.4 A total of 18 trees will be felled to make way for the car park and Breast Clinic, whilst a further 15 will be retained and protected (along the northern and eastern application site boundary). At least half of the trees to be felled are immature or non-native specimens, whilst most of those to be retained are mature and/or native. Two non-native hedgerows and a group of ornamental shrubs will also be removed. These hedges and shrubs are of low ecological value and their loss is not significant. The remaining eleven trees are middle-aged or mature native trees comprising sycamore, holly (*Ilex aquifolium*), hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*) and whitebeam (*Sorbus aria*). These are likely to provide resources for local invertebrates, foraging birds and foraging bats.

4.2.5 The TPO for the site includes a mature hawthorn tree (T22 of the TPO) which relates to tree 136 of the CBA tree report (CBA, 2009) and is recommended for removal within the CBA report. The application scheme therefore involves the removal of this tree. The TPO also includes a Leyland cypress (G4 of the TPO) which appears to relate to H3 of the CBA 2009 report. This will also be removed. It should be noted that the TPO relates to landscape value and inclusion of a tree or tree group within the TPO does not infer any particular ecological value.

4.2.6 In the absence of mitigation the application scheme will result in the loss of 18 trees, including 11 native, middle-aged or mature trees that are of ecological value at the site scale. Further information is given in the Arboricultural Development Statement report, submitted separately in support of the planning application. This is considered to be a negative impact of significance at the **site** scale.

Bats

4.2.7 The dwellings have been the subject of an internal and external inspection for bats (see the separate bat report in Appendix C). The survey found that the buildings have low-moderate potential to support bats during the summer months and no potential to support hibernating bats overwinter. No evidence of bats was found during the internal and external inspections and bats are considered likely absent from the roof voids. Roosting bats are therefore not considered to be a constraint to the demolition of this row of houses.

4.2.8 Eleven native trees will be felled and this may result in a slight reduction in the overall foraging value of the application site for bats, although it will not affect commuting behaviour since the existing tree-line will be retained. Six

of the more mature trees that will be felled have the potential to support roosting bats, and their loss could result in a reduction in available roosting opportunities on the site. There is also a low risk that individual bats may be harmed during felling works or that transitional tree roosts may be lost. Bats are UK BAP priority species and legally protected species and the conservation of any local bat colony can therefore be said to be of high, even national importance. However, the scale of impacts described here is unlikely to bring about any significant long-term effect on the conservation status of any bat population. At worst, a negative impact at the **local** scale may occur if a bat tree-roost is lost.

4.2.9 Since bats and their roosts are protected by law, there are potential legal implications associated with the felling of trees at the application site.

Birds

4.2.10 The vegetation clearance at the site will result in a reduction in available foraging and nesting habitat for birds. If the clearance is undertaken during the bird nesting season this could bring about direct killing and/or injury to nesting birds which would be considered to be a negative impact of **local** significance.

4.2.11 Since nesting birds, their nests, eggs and unfledged young are protected by law, there are potential legal implications associated with the vegetation removal at the application site.

Hedgehog

4.2.12 Hedgehogs have been recorded locally (assumed to be from Homefield Park, adjacent to the application site) and are known to occupy residential gardens, feeding on slugs, worms and invertebrates in the gardens and hibernating under log piles and old leaves. The residential gardens in the application site provide such opportunities and their may therefore bring about a reduction in available resources for hedgehogs at a site-scale. Hedgehogs are a UK BAP priority species but are not legally protected in any way. The scale of habitat loss arising from the application proposals involves less than 0.15 hectares of lost gardens. This is considered to be a negative impact of **site**-scale significance.

Stag beetle

4.2.13 Suitable habitat for stag beetle exists in a very localised manner within the roots and dead wood habitats in the soil surrounding the mature trees and plantation habitat at the site boundaries. This species has been recorded in central Worthing and is a UK BAP priority species. Since the application proposals involve retention of the mature tree boundaries, there is not considered to be any potential for adverse impacts to stag beetle.

4.3 RECOMMENDATIONS

Compliance with legal obligations and protection of ecological features

4.3.1 Due to the presence of suitable bird nesting habitat on the site, vegetation clearance should be undertaken outside of the bird nesting season (March – July inclusive). If this is not possible, an inspection for nesting birds should be undertaken by an ecologist immediately prior to the onset of demolition and vegetation clearance. If nesting birds are found to be present, a buffer should be retained around each nest until the young have become fully independent and fledged the nest.

4.3.2 Bats have been found to be absent from the buildings to be demolished. However, it is recommended that demolition of the houses is programmed to avoid the peak bat breeding season (June, July and August) as a precautionary measure, to preclude the risk of adverse impacts to bats.

4.3.3 Six of the trees that will be felled contain dead wood and have some potential to support roosting bats, predominantly as transitional roosts, which might be used in combination with the retained mature trees. It is recommended that these are inspected for evidence of roosting bats by a suitably qualified ecologist with the appropriate Natural England licence. These surveys should be conducted very close to the proposed felling date and suspected roosts should be subjected to dusk and dawn surveys immediately prior to felling. This is because bats use tree roosts in a transient way, and evidence of roosting (such as droppings, urine stains etc) degrades rapidly within roosts.

4.3.4 The mature tree boundaries along the north and west of the site should be protected throughout the construction phases using fencing and clear signage to delineate working areas and vehicular access routes. If intrusive ground works are required in the proximity to any of the trees or hedges, root protection areas should be

defined and protective fencing installed to ensure the long-term survival of this vegetation, in accordance with BS5837:2005 'Trees in relation to Construction'.

Compensatory Habitat Provision

4.3.5 Supplementary planting with native tree and hedgerow species is proposed along the northern and western boundary, to compensate for the loss of trees and vegetation within the existing residential gardens – this is considered sufficient compensation for the loss of the identified trees.

4.3.6 Bat boxes should be erected within existing trees at the site boundary to provide temporary roosting opportunities for bats, whilst the tree planting becomes established. This will compensate for any loss of available roosting opportunities.

Additional Enhancement Opportunities

4.3.7 Opportunities to incorporate bird nesting or provision for bat roosting within new Breast Clinic building (for example using commercially available bat bricks or boxes) should be explored.

4.3.8 There is currently a very high proportion of non-native plant species across the hospital this situation could be greatly improved by the introduction of new native species as these support a wider variety of fauna than exotic species. The soft landscaped areas of the application, including the buffer zone around the perimeter of the site and land immediately surrounding the clinic presents an opportunity for new native-species planting to create wildlife areas. The benefits of natural green spaces to health and wellbeing are increasingly well documented (Faculty of Public Health, 2010) and the creation of such 'wild spaces' within the hospital grounds may provide a valuable resource for the Trust in the future. It is therefore recommended that the soft landscape areas are made easily accessible to staff and patients.

4.3.9 There are a wide number of landscape options available, ranging from very cost-effective designs featuring long-grassland and wildflower areas, with informal mown paths through to more intensive options such as the creation of a wildlife pond or planting of blossom trees. A range of features could be incorporated into the soft landscaped areas to target specific species or species groups. These might include partially sunken log piles to benefit both stag beetles and hedgehogs and/or an open compost bin to receive grass clippings (providing habitat for slow worms and grass snake). A bespoke management plan should be created for this area with input from a suitably qualified ecologist, to ensure that opportunities for wildlife are maximised irrespective of the chosen landscape design.

4.3.10 The use of Sustainable Drainage Systems (SUDS) should be considered within the new development. In particular, permeable or semi-permeable surfaces should be considered during the design of new car parking areas.

4.3.11 The need to obtain BREEAM Excellent ratings is likely to identify such enhancement opportunities in order to secure the necessary credits.

4.4 RESIDUAL ECOLOGICAL IMPACTS

4.4.1 If the above recommendations relating to the protection of ecological features and provision of compensatory habitat are followed the scheme will bring about no net loss in biodiversity and **no** significant impact to ecological features. If additional enhancement opportunities are adopted, the scheme will provide a **long-term positive** impact to local biodiversity.

5 Assessment of Potential Ecological Impacts - Planning Application 2: New Ward Block

5.1 OVERVIEW OF DEVELOPMENT PROPOSALS

5.1.1 The application involves the construction of a new ward block which will be immediately south of the existing Children's Centre, on the site of an existing car park.

5.1.2 It is proposed to provide landscape treatment along a small stretch of the eastern site boundary along Homefield Road, adjacent to the new ward.

5.1.3 Construction and operational access will be over existing roads and hardstanding (car parks).

5.2 POTENTIAL ECOLOGICAL IMPACTS

5.2.1 The existing site comprises an existing car park. There are three middle-aged trees along the south-east boundary of the site and these will be removed to make way for the development. Due to the presence of trees on site, the following potential ecological receptors have been considered during this impact assessment; mature trees, bats, nesting birds.

Trees

5.2.2 An arboricultural survey has been undertaken by CBA trees (CBA, 2009) and a tree retention and felling plan has been produced for the application, enabling an accurate assessment of the scale of impacts to trees to be made.

5.2.3 The application site is bordered by a sycamore, a bay (*Laurus sp*.) and a common yew. These trees will be lost to make way for the development. Their loss is not considered to be significant at any scale since they represent such a small proportion of the total tree cover across the hospital site. There is the potential for adverse impacts to nesting birds, if felling were to take place during the nesting season.

5.2.4 The TPO for the site includes a yew and sycamore (but not a bay) within Group 4 of the TPO and these may relate to two of the trees which will be removed, although this is not clear. It should be noted that the TPO relates to landscape value and inclusion of a tree or tree group within the TPO does not infer any particular ecological value.

5.2.5 A further five trees are present near to the construction area, to the south of the trees that will be felled. Without appropriate mitigation, these could potentially be damaged during the course of construction.

Bats

5.2.6 Although semi-mature specimens, these trees do not contain any dead wood or rot holes and do not have the potential to support roosting bats and therefore no impacts to bats are likely.

Birds

5.2.7 They trees provide limited bird nesting habitat and if tree removal is undertaken during the bird nesting season this could bring about direct killing and/or injury to nesting birds which would be considered to be a negative impact of **local** significance.

5.2.8 Since nesting birds, their nests, eggs and unfledged young are protected by law, there are potential legal implications associated with tree removal at the application site.

5.3 RECOMMENDATIONS

Compliance with legal obligations and protection of ecological features

5.3.1 Trees should be removed outside of the bird nesting season (March – July inclusive). If this is not possible, an inspection for nesting birds should be undertaken by an ecologist immediately prior to the onset of tree removal. If nesting birds are found to be present, a buffer should be retained around each nest until the young have become fully independent and fledged the nest.

5.3.2 The trees to be retained to the south of the site should be protected throughout the construction phases using fencing and clear signage to delineate working areas and vehicular access routes, in accordance to BS5837:2005 'Trees in relation to Construction'.

Enhancement Opportunities

5.3.3 The soft-landscaping undertaken in association with the development (along the Homefield Road boundary) should involve the use of a high proportion of native species, which are of more value to wildlife than exotic planting.

5.3.4 Opportunities to incorporate ecological enhancement features into the new building should also be explored. This may involve installation of bird nesting or provision for bat roosting (for example using commercially available bat bricks or boxes) or the use of green roofs, brown roofs or vertical habitats such as green walls. Green roofs are vegetated roof systems that provide a number of benefits such as improved water retention, increased building life expectancy and reduced noise reflection in addition to the ecological benefits of habitat creation. Brown roofs are easier to maintain and provide a bare substrate on which vegetation can become established, providing invertebrate and bird foraging habitat. Vertical habitats such as ivy clad structural work can hide unsightly features and provide habitat for invertebrates and birds.

5.3.5 The use of Sustainable Drainage Systems (SUDS) should be considered within the new development. In particular, permeable or semi-permeable surfaces should be considered during the design of new car parking areas.

5.3.6 The need to obtain BREEAM Excellent ratings is likely to identify such enhancement opportunities in order to secure the necessary credits.

5.4 RESIDUAL ECOLOGICAL IMPACTS

5.4.1 The application will not bring about any negative ecological impact and presents the opportunity to deliver a long-term positive gain if new landscape planting is designed to benefit wildlife and, in particular, involves the use of native tree and shrub species.

6 Conclusions

6.1.1 The Worthing Hospital Site comprises hardstanding (car parking) and a variety of buildings including hospital wards, offices and residential housing. There are no statutory or non-statutory designated sites for nature conservation that fall within the potential influence of the scheme proposals.

6.1.2 The extent of ecologically valuable habitat within the hospital grounds is limited in size and geographical location and comprises:

- Individual mature trees (protected by a Tree Preservation Order) and small areas of plantation woodland along hospital boundaries; and
- Ponds.

6.1.3 In addition, the hospital contains suitable habitat to support the following protected or notable species: nesting birds, hedgehog, stag beetle, slow worm and roosting bats.

6.1.4 The two schemes considered within this report involve a low level of habitat loss, relating to felling of mature and immature trees, which can be readily compensated for through new planting with native species. No ponds will be impacted by the schemes.

6.1.5 It is recommended that mature trees with the potential to support roosting bats are subjected to pre-felling inspections to ensure that there are no adverse impacts to roosting bats, and that all vegetation removal takes place outside of the nesting bird season (which generally runs from March – July inclusive).

6.1.6 Retained trees that are close to construction activities should be safeguarded with protective fencing in accordance with BS5837:2005 'Trees in relation to Construction'.

6.1.7 In order to compensate for tree loss, new native species planting is proposed within soft-landscaping areas, including on the boundary with Homefield Park and adjacent to Homefield Road adjacent to the new ward block. In addition, it is recommend that a small number of bat boxes are erected within retained trees along the northern and western boundaries of the new Breast Clinic site, to ensure continuity of available tree roosting resource whilst new planting becomes established.

6.1.8 The proposed landscape buffer zones around the perimeter of the new Breast Clinic site, as well as adjacent to Homefield Road adjacent to the new ward block, present opportunities for ecological enhancement through wildlife habitat creation and recommendations within this report include creation of wildflower areas, log piles and even wildlife ponds, to deliver biodiversity enhancement and create a 'wild space' resource for use by the thrust in line with the Faculty of Public Health's recent report on the use of green space to improve wellbeing (Faculty of Public Health, 2010). The need to obtain BREEAM Excellent ratings is likely to identify such enhancement opportunities in order to secure the necessary credits.

6.1.9 Some of the mature trees which will (or may) be felled are listed under a TPO for the hospital site. This does not infer any particular ecological value and, although the presence of the TPO will be taken into account when determining the applications, there is no specific ecological reason for the trees to be retained provided the recommendations in this report relating to pre-felling inspections and compensatory tree planting are adopted.

References

CBA Trees (2009) Tree Root Protection Area Schedule, Worthing Hospital, Lyndhurst Road by Richard Harris. Document Reference CBA7245

Faculty of Public Health (2010) Great Outdoors: How Our Natural Health Service Uses Green Space To Improve Wellbeing.

Figure 1 Ecological Constraints to Re-development

Ecological Constraints to Redevelopment

Scale @ A3 : 1:1,600

12260686/001 Figure 1



KEY:

- Site Boundary
- On-site constraint
- Off-site constraint
- Potential constraint
- ? Atrium - not surveyed but potential for protected species where ponds are present

Worthing Hospital Ecological Constraints Report

Worthing and Southlands NHS Trust

Designed and Checked : AB
Approved : AB
Drawn : JMM
Date : December 2008

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Hampshire, RG21 4HJ
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http://www.wspgroup.com

WSP

Appendix A Selected Data Provided By Sussex Biological Records Centre

Table 1. Protected species records of greatest relevance to the site

Species	Scientific Name	Grid Refence	Date	Species status
Stag beetle	*Lucanus cervus*	TQ141032	09/07/2002	UK BAP
Great Crested Newt	*Triturus cristatus*	TQ161039	May 2004	European Protected Species, UK BAP
Common toad	*Bufo bufo*	TQ158034	01/03/1994	UK BAP
Slow worm	*Anguis fragilis*	TQ162032	2002	Nationally protected, UK BAP
Hedgehog	*Erinaceous europaeus*	TQ151036	2007	UK BAP

Habitat Map (ESD/08/599):

Land at Worthing Hospital + 2km radius

Prepared for Angela Bond, WSP Environmental Ltd - 12/11/2008

Sussex Biodiversity Record Centre
Email: sxbrc@sussexwt.org.uk
Website: www.sxbrc.org.uk
Woods Mill, Henfield
West Sussex BN5 9SD
Tel: 01273 497 558/557
Fax: 0203 070 0709



Key to Map:

- Enquiry Area
- Reedbed/Fen
- River
- Pond

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West Sussex County Council 100023447. 2008
East Sussex County Council 100019601. 2008
Natural England 100046223. 2008
Sussex Wildlife Trust 100025883. 2008.

N

0 0.5 1 Km

Where appropriate, The Sussex Biodiversity Record Centre would like to acknowledge the following dataset providers: Natural England (RAMSAR, SAC, SPA, NNR, SSSI, ancient woodland, chalk grassland, vegetated shingle and saline lagoon data), East Sussex County Council (LNR, SNCI, country park, heathland and notable verge data), West Sussex County Council (LNR, SNCI, country park, notable verge and heathland data), Brighton & Hove City Council (SNCI & LNR data), The Environment Agency (grazing marsh, urban areas, and hydrological data), The Farming & Rural Conservation Agency (ESA data), South Downs Joint Committee (chalk grassland data), The Woodland Trust (Woodland Trust sites data, ©The Woodland Trust), The National Trust (NT properties data), Sussex Wildlife Trust (SWT reserves data), Sussex Otters & Rivers Partnership (Black Poplar data), and Dr. Francis Rose (ghyll woodland data). © Crown Copyright. All rights reserved 2008.

Designated Site Map (ESD/08/599):

Land at Worthing Hospital + 2km radius

Prepared for Angela Bond, WSP Environmental Ltd - 12/11/2008

Sussex Biodiversity Record Centre
Email: sxbrc@sussexwt.org.uk
Website: www.sxbrc.org.uk
Woods Mill, Henfield
West Sussex BN5 9SD
Tel: 01273 497 558/557
Fax: 0203 070 0709



Key to Map:

- Enquiry Area
- SNCI

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Appendix B Tree Preservation Order for Worthing Hospital

Town and Country Planning Act 1990

Insert title of Order

Site at Worthing Hospital and adjacent land
Park Road, Park Avenue, Homefield Road and Lyndhurst Road, Worthing

TREE PRESERVATION ORDER, 1992. No 12

Insert name of local planning authority

The Borough Council of Worthing

in this Order called "the authority", in pursuance of the powers conferred in that behalf by sections 198 and 199 [[and] 201*] [~~and~~ ~~300~~] of the Town and Country Planning Act 1990, and subject to the provisions of the Forestry Acts 1967 and 1979, hereby make the following Order:—

1. In this Order:—

"the Act" means the Town and Country Planning Act 1990;

"owner" means the owner in fee simple, either in possession or who has granted a lease or tenancy of which the unexpired portion is less than three years; lessee (including a sub-lessee) or tenant in possession, the unexpired portion of whose lease or tenancy is three years or more; and a mortgagee in possession; and

"the Secretary of State" means the [Secretary of State for the Environment] [~~Secretary of State for Wales~~]

2.—Subject to the provisions of this Order and to the exemptions specified in the Second Schedule hereto, no person shall, except with the consent of the authority and in accordance with the conditions, if any, imposed on such consent, cut down, top, lop, uproot, wilfully damage or wilfully destroy or cause or permit the cutting down, topping, lopping, uprooting, wilful damage or wilful destruction of any tree specified in the First Schedule hereto or comprised in a group of trees or in a woodland therein specified, the position of which trees, groups of trees and woodlands is defined in the manner indicated in the said First Schedule on the map annexed hereto‡ which map shall, for the purpose of such definition as aforesaid, prevail where any ambiguity arises between it and the specification in the said First Schedule.

3.—An application for consent made to the authority¶ under Article 2 of this Order shall be in writing stating the reasons for making the application, and shall by reference if necessary to a plan specify the trees to which the application relates, and the operations for the carrying out of which consent is required.

4.—(1) Where an application for consent is made to the authority under this Order, the authority may grant such consent either unconditionally, or subject to such conditions (including conditions requiring the replacement of any tree by one or more trees on the site or in the immediate vicinity thereof), as the authority may think fit, or may refuse consent:

Provided that where the application relates to any woodland specified in the First Schedule to this Order the authority shall grant consent so far as accords with the principles of good forestry, except where, in the opinion of the authority, it is necessary in the interests of amenity to maintain the special character of the woodland or the woodland character of the area, and shall not impose conditions on such consent requiring replacement or replanting.

NOTE: Where appropriate this Order has been updated to reflect statutory amendments which have resulted in the need to show substitutions or repeals of the prescribed form.

* Include only where Order contains a direction under section 201 of the Act.

‡ Map to be to a scale of not less than 25 inches to one mile (1:2500), except in the case of large woodlands when the scale shall be 6 inches to one mile (1:10000 or 1:10560).

¶ NOTE: If it is proposed to fell any of the trees included in this Order and the felling requires a licence under the Forestry Act 1967, an application should be made in the first place to the Forestry Commission.

(2) The authority shall keep a register of all applications for consent under this Order containing information as to the nature of the application, the decision of the authority thereon, any compensation awarded in consequence of such decision and any directions as to replanting of woodlands; and every such register shall be available for inspection by the public at all reasonable hours.

5.—Where the authority refuse consent under this Order or grant such consent subject to conditions they may when refusing or granting consent certify in respect of any trees for which they are so refusing or granting consent that they are satisfied—

(a) that the refusal or condition is in the interests of good forestry; or

(b) in the case of trees, other than trees comprised in a group of trees or in a woodland, that the trees have an outstanding or special amenity value; or

(c) in the case of trees which are comprised in a group of trees or in a woodland, that the group of trees or the woodland, as the case may be, has an outstanding or special amenity value,

but a certificate shall not be given in the case of trees falling within *(c)* above if the application in respect of them has been referred by the Forestry Commissioners under section 15(1)(b) or 15(2)(a) of the Forestry Act 1967.

6.—(1) Where consent is granted under this Order to fell any part of a woodland other than consent for silvicultural thinning then unless—

(a) such consent is granted for the purpose of enabling development to be carried out in accordance with a permission to develop land under Part III of the Act, or

(b) the authority with the approval of the Secretary of State dispense with replanting,

the authority shall give to the owner of the land on which that part of the woodland is situated a direction in writing specifying the manner in which and the time within which he shall replant such land and where such a direction is given and the part is felled the owner shall, subject to the provision of this Order and section 204 of the Act, replant the said land in accordance with the direction.

(2) Any direction given under paragraph (1) of this Article may include requirements as to—

(a) species;

(b) number of trees per acre (hectare);

(c) the erection and maintenance of fencing necessary for protection of the replanting;

(d) the preparation of ground, draining, removal of brushwood, lop and top; and

(e) protective measures against fire.

7.—On imposing any condition requiring the replacement of any tree under Article 4 of the Order, or on giving a direction under Article 6 of this Order with respect to the replanting of woodlands, the authority shall if such condition or direction relates to land in respect of which byelaws made by the National Rivers Authority, an internal drainage board, a water undertaker or a sewerage undertaker (as defined in the Water Act 1989) or any other authority whose functions are now exercised by the above bodies, restrict or regulate the planting of trees, notify the applicant or the owner of the land, as the case may be, of the existence of such byelaws and that any condition or direction has effect subject to the requirements of the byelaws, and the condition or direction shall have effect accordingly.

8.—The provisions set out in the Third Schedule to this Order, being provisions of Part III of the Act adapted and modified for the purposes of this Order, shall apply in relation thereto.

9.—Subject to the provisions of this Order, any person who has suffered loss or damage in consequence of any refusal (including revocation or modification) of consent under this Order or of any grant of any such consent subject to conditions, shall, if he makes a claim on the authority within the time and in the manner prescribed by this Order, be entitled to recover from the authority compensation in respect of such loss or damage:

Provided that no compensation shall be payable in respect of loss or damage suffered by reason of such refusal or grant of consent in the case of any trees the subject of a certificate in accordance with Article 5 of this Order.

10.—In assessing compensation payable under the last preceding Article account shall be taken of:

(a) any compensation or contribution which has been paid whether to the claimant or any other person, in respect of the same trees under the terms of this or any other Tree Preservation Order under section 198 of the Act, or under the terms of any Interim Preservation Order made under section 8 of the Town and Country Planning (Interim Development) Act 1943, or any compensation which has been paid or which could have been claimed under any provision relating to the preservation of trees or protection of woodlands contained in an operative scheme under the Town and Country Planning Act 1932, and

(b) any injurious infection to any land of the owner which would result from the felling of the trees the subject of the claim.

11.—(1) A claim for compensation under this Order shall be in writing and shall be made by serving it on the authority, such service to be effected by addressing the claim to the authority and leaving it at or sending it by post to the principal office of the authority.

(2) The time within which any such claim shall be made as aforesaid shall be a period of twelve months from the date of the decision of the authority, or of the Secretary of State, as the case may be, or where an appeal has been made to the Secretary of State against the decision of the authority, from the date of the decision of the Secretary of State on the Appeal.

12.—Any question of disputed compensation shall be determined in accordance with the provisions of section 205 of the Act.

13.—[(1) The provisions of section 201 of the Act shall apply to this Order and the Order shall take effect on 28th August 1992 .]*

[(2) This Order shall apply to any tree specified in the First Schedule hereto, which is to be planted as mentioned therein, as from the time when that tree is planted.]†xxx

NOTE: Any person contravening the provisions of this Order by cutting down, uprooting or wilfully destroying a tree, or by wilfully damaging, topping or lopping a tree in such a manner as to be likely to destroy it is guilty of an offence and liable on summary conviction to a fine not exceeding the prescribed sum§ or twice the sum which appears to the court to be the value of the tree, whichever is the greater, or on indictment to a fine. The penalty for any other contravention of this Order is a fine not exceeding Level 4 on the standard scale‡ on summary conviction and, in the case of a continuing offence when the contravention is continued after conviction, a person is liable on summary conviction to an additional fine not exceeding £5 for every day on which the contravention is so continued.

If a tree is removed, uprooted or destroyed in contravention of an order or, except in the case of a tree to which the Order applies as part of a woodland, is removed, uprooted or destroyed or dies at a time when its cutting down or uprooting is authorised only by section 198(6)(a) of the Town and Country Planning Act 1990 relating to trees which are dying or dead or have become dangerous, it is the duty of the owner of the land, unless on his application the local planning authority dispense with the requirement, to plant another tree of appropriate size and species at the same place as soon as he reasonably can. Except in emergency, not less than 5 days previous notice of the removal, etc., should be given to the authority to enable the latter to decide whether or not to dispense with the requirement. In respect of trees in a woodland it is sufficient to replace the trees removed, uprooted or destroyed by planting the same number of trees either on or near the land on which the trees removed, uprooted or destroyed stood or on such other land as may be agreed between the authority and the owner of the land, and (in either case) in such places as may be designated by the authority.

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* This provision is not to be included unless it appears to the authority that the Order should take effect immediately.

† This provision may be included in relation to trees to be planted pursuant to a condition imposed under section 197 of the Act.-

§ This sum is currently £2000 but provision is made under the Planning and Compensation Act 1991 for a fine on summary conviction not exceeding £20,000. In addition the provision for daily fines for continuing offences will be abolished. These revised penalties will become operative on the coming into effect of section 23 of that Act.

‡ £1000 but subject to alteration by Order.

FIRST SCHEDULE

TREES SPECIFIED INDIVIDUALLY*

(encircled in black on the map)

No. on Map.	*Description.*	*Situation.*
As per attached Schedule		

TREES SPECIFIED BY REFERENCES TO AN AREA*

(within a dotted black line on the map)

No. on Map.	*Description*	*Situation.*
None		

GROUPS OF TREES*

(within a broken black line on the map)

No. on Map.	*Description.*	*Situation.*
As per attached Schedule		

* The word "NONE" must be entered where necessary.

FIRST SCHEDULE

No. on Plan	Species	Situation
T1	Lime	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T2	Horse Chestnut	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T3	Horse Chestnut	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T4	Purple Beech	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T5	Lime	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T6	Silver Birch	Grassed area, north-west of Worthing Hospital, adjacent to driveway
T7	Leyland Cypress	North-western part of grounds of Worthing Hospital, adjacent to Homefield Park
T8	Ash	North-western part of grounds of Worthing Hospital, adjacent to Homefield Park
T9	Sweet Chestnut	North-western part of grounds of Worthing Hospital, adjacent to Homefield Park
T10	Ash	Northern part of grounds of Worthing Hospital, adjacent to Homefield Park
T11	Silver Birch	Northern part of grounds of Worthing Hospital, adjacent to driveway from Park Avenue
T12	Variegated False Acacia (Robinia Frisia)	North-eastern side of Worthing Hospital, adjacent to driveway
T13	Ash	Eastern side of grounds of Worthing Hospital (rear of 29-31 Park Avenue)
T14	Lime	Eastern side of Park Avenue (outside Nos.2/4)
T15	Lime	Eastern side of Park Avenue (outside No.12)

No. on Plan	Species	Situation
T16	Lime	Western side of Park Avenue (outside Hospital)
T17	Lime	Western side of Park Avenue (outside Hospital)
T18	Lime	Western side of Park Avenue (outside Hospital)
T19	Lime	Western side of Park Avenue (outside Hospital)
T20	Ash	North-western corner of rear garden of 31 Park Avenue
T21	Ash	Northern part of rear garden of 47 Park Avenue, adjacent to Homefield Park
T22	Hawthorn	Northern part of rear garden of 59-61 Park Avenue, adjacent to Homefield Park
T23	Yew	North-eastern corner of front garden, 53 Homefield Road
T24	Bay	Front garden of 49 Homefield Road
T25	Tree of Heaven	Rear garden of 33 Homefield Road
T26	Sycamore	Adjacent to western boundary of 'Homefield', Homefield Road
T27	Sycamore	Adjacent to western boundary of 'Homefield', Homefield Road
T28	Purple Beech	South-eastern corner of grounds of 'Homefield', Homefield Road/ Lyndhurst Road
T29	Monterey Cypress	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road
T30	Irish Yew	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road
T31	Sycamore	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road
T32	Purple Beech	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road

No. on Plan	Species	Situation
G1	Group consisting of 2 Scots Pine and 1 Lime	Western side of Worthing Hospital, (south of transformer station)
G2	Group of 2 Ash	Western side of Worthing Hospital, within grassed area adjacent to driveway to Park Road
G3	Group of 3 Lime	Northern part of grounds of Worthing Hospital, adjacent to Homefield Park
G4	Group of 2 Sycamore and 1 Leyland Cypress	Rear garden of No.37 Park Avenue, adjacent to Homefield Park
G5	Group of 2 Sycamore, 2 Holm Oak, 1 Common Yew and 1 Leyland Cypress	North-eastern side of grounds of 'Homefield', adjacent to Homefield Road

WOODLANDS*

(within a continuous black line on the map)

No. on Map.	*Description*	*Situation.*
None		

* The word "NONE" must be entered where necessary.

SECOND SCHEDULE

This Order shall not apply so as to require the consent of the authority to

(1) the cutting down of any tree on land which is subject to a forestry dedication covenant where
   (*a*) any positive covenants on the part of the owner of the land contained in the same deed as the forestry dedication covenant and at the time of the cutting down binding on the then owner of the land are fulfilled;
   (*b*) the cutting down is in accordance with a plan of operations approved by the Forestry Commission under such deed.

(2) the cutting down of any tree which is in accordance with a plan of operations approved by the Forestry Commission under a grant scheme under section 1 of the Forestry Act 1979 except a scheme which applies to a forestry dedication covenant.

(3) the cutting down, uprooting, topping or lopping of a tree
   (*a*) by or at the request of the Post Office where the land on which the tree is situated is land which has been acquired for the purpose of the Post Office's undertaking and either works on such land cannot otherwise be carried out or the cutting down, uprooting, topping or lopping is for the purpose of securing safety in the operation of the undertaking; or the lopping in pursuance of the power conferred on any operator of a telecommunications code system by virtue of paragraph 19 of Schedule 2 to the Telecommunications Act 1984;
   (*b*) by or at the request of
      (i) a statutory undertaker or a holder of a licence under section 6(1) of the Electricity Act 1989 where the land on which the tree is situated is operational land as defined by the Act and either works on such land cannot otherwise be carried out or the cutting down, uprooting, topping or lopping is for the purpose of securing safety in the operation of the undertaking;
      (ii) a licence holder within the meaning of Part I of the Electricity Act 1989, where such tree obstructs the construction by the licence holder of any electric line within the meaning of Part I of the said Act of 1989 or interferes or would interfere with the maintenance or working of any such line;
      (iii) the National Rivers Authority or an internal drainage board established under the Water Act 1989, where the tree interferes or would interfere with the exercise of any of the functions of such authority or drainage board in relation to the maintenance, improvement or construction of water courses or of drainage works; or a water undertaker or sewerage undertaker appointed under section 11 of the Water Act 1989 in relation to their duties as such undertakers; or
      (iv) the Secretary of State for Defence, the Secretary of State for Transport, the Civil Aviation Authority, or in relation to any airport managed by a company to which any property, rights or liabilities have been transferred in pursuance of a scheme made under section 1 or 15 of the Airports Act 1986, the person for the time being having the management of the airport, where in the opinion of such Secretary of State, Authority or person the tree obstructs the approach of aircraft to, or their departure from, any airport or hinders the safe and efficient use of aviation or defence technical installations;
   (*c*) where immediately required for the purpose of carrying out development authorised by the planning permission granted on an application made under Part III of the Act, or deemed to have been so granted for any of the purposes of that Part;
   (*d*) which is a fruit tree cultivated for fruit production growing or standing on land comprised in an orchard or garden.

THIRD SCHEDULE

Provisions of the following parts of Part III of the Town and Country Planning Act 1990 as adapted and modified to apply to this Order.

75.—(1) Without prejudice to the following provisions as to the revocation or modification of consents, any consent under the Order, including any direction as to replanting given by the authority on the granting of such consent, shall (except in so far as the consent otherwise provides), enure for the benefit of the land and of all persons for the time being interested in it.

77. **Reference of applications to the Secretary of State.**—(1) The Secretary of State may give directions to the authority requiring applications for consent under the Order to be referred to him instead of being dealt with by the authority.

(2) a direction under this section may relate either to a particular application or to applications of a class specified in the direction.

(3) Any application in respect of which a direction under this section has effect shall be referred to the Secretary of State accordingly.

(4) Where an application for consent under the Order is referred to the Secretary of State under this section, the provisions of Articles 4 and 5 of the Order shall apply as they apply to such an application which falls to be determined by the authority.

(5) Before determining an application referred to him under this section the Secretary of State shall, if either the applicant or the authority wish, give each of them an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose.

(7) The decision of the Secretary of State on any application referred to him under this section shall be final.

78. **Appeals against decisions or in default of decision.**—(1) Where an authority—

(*a*) refuse an application for consent under the Order or grant it subject to conditions, or

(*b*) give any certificate or direction, on granting consent,

the applicant may by notice appeal to the Secretary of State.

(2) A person who has made an application for consent under the Order may also appeal to the Secretary of State if the authority have neither—

(*a*) given notice to the applicant of their decision on the application; nor

(*b*) given notice to him that the application has been referred to the Secretary of State in accordance with directions given under section 77 above,

within two months from the date of receipt of the application, or within such extended period as may at any time be agreed upon in writing between the applicant and the authority.

(3) Any appeal under this section shall be made by notice in writing served within such time as is specified in subsection (4) below.

(4) The service of such a notice must be within—

(*a*) 28 days from the receipt of notification of the decision, certificate or direction, as the case may be, or such longer period as the Secretary of State may allow; or

(*b*) in the case of an appeal under subsection (2), 28 days or such longer period as the Secretary of State may allow from the end of the period of two months or, as the case may be, the extended period agreed.

(5) In relation to an appeal under subsection (2), it shall be assumed that the authority decided to refuse the application in question.

79. **Determination of appeals.**—(1) On an appeal under section 78 the Secretary of State may—

(*a*) allow or dismiss the appeal,

(*b*) reverse or vary any part of the decision of the authority (whether the appeal relates to that part of it or not), or

(*c*) cancel any certificate or cancel or vary any direction,

and may deal with the application as if it had been to him in the first instance.

(2) Before determining an appeal under section 78 the Secretary of State shall, if either the appellant or the authority so wish, give each of them an opportunity of appearing before and being heard by a person appointed by the Secretary of State for the purpose.

(5) The decision of the Secretary of State on such an appeal shall be final.

97. **Power to revoke or modify the consent under the Order.**—(1) If it appears to the authority that it is expedient to revoke or modify any consent under the Order granted on an application made under Article 3 of the Order, the authority may by Order revoke or modify the consent to such extent as they consider expedient.

(3) The power conferred by this section may be exercised at any time before the operations for which consent has been given have been completed.

(4) The revocation or modification of consent shall not affect so much of those operations as has been previously carried out.

98. Procedure for s.97 Orders: opposed cases.—(1) Except as provided in section 99, an Order under section 97 shall not take effect unless it is confirmed by the Secretary of State.

(2) Where an authority submit such an Order to the Secretary of State for confirmation, they shall provide the Secretary of State with a statement of their reason for making the Order and shall serve notice together with a copy of the statement on—

(*a*) the owner of the land affected,

(*b*) the occupier of the land affected, and

(*c*) any other person who in their opinion will be affected by the Order.

(3) The notice shall specify the period within which any person on whom it is served may require the Secretary of State to give him an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose.

(4) If within that period such a person so requires, before the Secretary of State confirms the Order he shall give such an opportunity both to him and to the local planning authority.

(5) The period referred to in subsection (3) shall be 28 days from the service of the notice.

(6) The Secretary of State may confirm an Order submitted to him under this section either without modification or subject to such modifications as he considers expedient.

(7) Where a notice has been served in accordance with the provisions of subsection (2) of this section, no operations or further operations as the case may be, in pursuance of the consent granted, shall be carried out pending the decision of the Secretary of State under this section.

99. Procedure for s.97 Orders: unopposed cases.—(1) This section applies where—

(*a*) the authority have made an Order under section 97 above; and

(*b*) the owner and occupier of the land and all persons who in the authority's opinion will be affected by the Order have notified the authority in writing that they do not object to it.

(2) Where this section applies, instead of submitting the Order to the Secretary of State for confirmation the authority shall advertise the fact that the Order has been made and the advertisement must specify—

(*a*) the period within which persons affected by the Order may give notice to the Secretary of State that they wish for an opportunity of appearing before, and being heard by, a person appointed by the Secretary of State for the purpose; and

(*b*) the period at the expiration of which, if no such notice is given to the Secretary of State, the Order may take effect by virtue of this section without being confirmed by the Secretary of State.

(3) The authority shall also serve notice to the same effect on the persons mentioned in subsection (1)(b).

(4) The period referred to in subsection 2(a) must be not less that 28 days from the date the advertisement first appears.

(5) The period referred to in subsection 2(b) must be not less than 14 days from the expiration of the period referred to in subsection (2)(a).

(6) The authority shall send a copy of any advertisement published under subsection (2) to the Secretary of State not more than three days after the publication.

(7) If—

(*a*) no person claiming to be affected by the Order has given notice to the Secretary of State under subsection (2)(a) within the period referred to in that subsection, and

(*b*) the Secretary of State has not directed within that period that the Order be submitted to him for confirmation,

the Order shall take effect at the expiry of the period referred to in subsection 2(b) without being confirmed by the Secretary of State as required by section 98(1).

(8) This section does not apply to an Order revoking or modifying a consent granted or deemed to have been granted by the Secretary of State under Part III, Part VII or Part VIII of the Act.

GIVEN under the Common Seal of the

BOROUGH COUNCIL OF WORTHING

the 28th August 19 92 .

.....

.....

Dated 28th August 19 92 .

WORTHING BOROUGH COUNCIL

TOWN AND COUNTRY PLANNING ACT 1990

TREE PRESERVATION ORDER

relating to

Site of Worthing Hospital and adjacent land, Park Road, Park Avenue, Homefield Road and Lyndhurst Road, Worthing, West Sussex.

Cat. No. TCP 38
Shaw & Sons Ltd., Shaway House, Crayford, Kent DA1 4BZ
LLE 13591

FIRST SCHEDULE

Amended 5th October 199

No. on Plan	Species	Situation
T1	Lime	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T2	Horse Chestnut	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T3	Horse Chestnut	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T4	Purple Beech	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T5	Lime	Grassed area, western side of Worthing Hospital, adjacent to Park Road
T6	Silver Birch	Grassed area, north-west of Worthing Hospital, adjacent to driveway
T7	Leyland Cypress	North-western part of grounds of Worthing Hospital, adjacent to Homefield Park
T8	Ash	North-western part of grounds of Worthing Hospital, adjacent to Homefield Park
T9	Sweet Chestnut	North-western part of grounds of Worthing Hospital, adjacent to Homefield Park
T10	Ash	Northern part of grounds of Worthing Hospital, adjacent to Homefield Park
T11	Silver Birch	Northern part of grounds of Worthing Hospital, adjacent to driveway from Park Avenue
T12	Variegated False Acacia (Robinia Frisia)	North-eastern side of Worthing Hospital, adjacent to driveway
T13	Ash	Eastern side of grounds of Worthing Hospital (rear of 29-31 Park Avenue)
T14	~~Lime~~ Plane	Eastern side of Park Avenue (outside Nos.2/4)
T15	~~Lime~~ Plane	Eastern side of Park Avenue (outside No.12)

No. on Plan	Species	Situation
T16	~~Lime~~ Plane	Western side of Park Avenue (outside Hospital)
T17	~~Lime~~ Plane	Western side of Park Avenue (outside Hospital)
T18	~~Lime~~ Plane	Western side of Park Avenue (outside Hospital)
T19	~~Lime~~	Western side of Park Avenue (outside Hospital)
T20	Ash	North-western corner of rear garden of 31 Park Avenue
Deleted ~~T21~~	~~Ash~~	~~Northern part of rear garden of 47 Park Avenue, adjacent to Homefield Park~~
T22	Hawthorn	Northern part of rear garden of 59-61 Park Avenue, adjacent to Homefield Park
T23	Yew	North-eastern corner of front garden, 53 Homefield Road
T24	Bay	Front garden of 49 Homefield Road
T25	Tree of Heaven	Rear garden of 33 Homefield Road
T26	Sycamore	Adjacent to western boundary of 'Homefield', Homefield Road
T27	Sycamore	Adjacent to western boundary of 'Homefield', Homefield Road
T28	Purple Beech	South-eastern corner of grounds of 'Homefield', Homefield Road/ Lyndhurst Road
T29	Monterey Cypress	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road
T30	Irish Yew	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road
T31	Sycamore	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road
T32	Purple Beech	Southern side of grounds of 'Homefield', adjacent to Lyndhurst Road

No. on Plan	Species	Situation
G1	Group consisting of 2 Scots Pine and 1 Lime	Western side of Worthing Hospital, (south of transformer station)
G2	Group of 2 Ash	Western side of Worthing Hospital, within grassed area adjacent to driveway to Park Road
G3	Group of 3 Lime	Northern part of grounds of Worthing Hospital, adjacent to Homefield Park
G4	Group of 2 Sycamore and 1 Leyland Cypress	Rear garden of No.37 Park Avenue, adjacent to Homefield Park
G5	Group of 2 Sycamore, 2 Holm Oak, 1 Common Yew and 1 Leyland Cypress	North-eastern side of grounds of 'Homefield', adjacent to Homefield Road

DELETED 5/10/92

HOMEFIELD PARK

N

PARK AVENUE

HOMEFIELD ROAD

PARK ROAD

LYNDHURST ROAD

CRANWORTH ROAD

SUGDEN ROAD

Ward Bdy — C.R.

Courts

Shelter

School of Nursing

El Sub Sta

Corporation Depot

Electricity Works

Car Park

Tennis Courts

St John Ambulance Brigade HQ

Garage

T1 T2 T3 T4 T5 T6 T7 T8 T9 T10 T11 T12 T13 T14 T15 T16 T17 T18 T19 T20 T22 T23 T24 T25 T26 T27 T28 T29 T30 T31 T32

G1 G2 G3 G4 G5

BM 25.15

BM 24.76

BM 7.92m

7.3m

7.0m

A.D. Clarke BA MA MRTPI Borough Planning Officer Worthing

Scale : 1:1250

Confirmed, Amended, 5th October 1992

Date : 3rd August 1992 DRG.No. DC 92/42

The Worthing Tree Preservation Order No. 12. 1992

Site of Worthing Hospital & adjacent land, Park Road, Park Avenue, Homefield Road and Lyndhurst Road

Appendix C Bat Survey Report



Worthing Hospital
Internal Bat Inspections for Properties at 33-63 Park Avenue

Western Sussex Hospitals NHS Trust

February 2009

QM

Issue/revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks				
Date	February 2009			
Prepared by	AB			
Signature				
Checked by	LW			
Signature	pp 			
Authorised by	CR			
Signature				
Project number	12260686			
File reference				

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Executive Summary

An internal and external building inspection was undertaken of buildings 33-63 Park Avenue by a suitably qualified and experienced ecologist on 12th February 2009. The purpose of the survey was to determine the likely presence/ absence of roosting bats within the buildings, which are proposed for demolition as part of the redevelopment plans for Worthing Hospital.

The houses are considered to hold low-moderate potential to support bats during the summer months and no potential to support hibernating bats overwinter.

No evidence of bats was found during the internal and external inspections and bats are considered likely absent from the roof voids.

Roosting bats are not considered to be a constraint to the redevelopment of this row of houses. However, it is recommended that demolition of the houses is programmed to occur during September – April inclusive as a precautionary measure, to preclude any risk of adverse impacts to bats.

Should the retention of any individual mature tree on site not be possible, the tree should be assessed for its potential to support bats (by an appropriately experienced surveyor). This will ensure that any potential impacts to tree-roosting bats can be avoided, and that any legislative obligations can be met.

If there is to be an extensive loss of mature vegetation (i.e. mature trees and plantation woodland), evening and dawn activity surveys should also be undertaken across the Site between May and September (on two separate survey occasions) to record bat activity around features identified as being suitable for commuting and foraging bats, and highlight key habitats for bats.

We recommend that the scheme design should seek to retain existing mature foliage and should include new planting of native species where possible, in order to avoid adverse ecological impacts and to seek enhancement of the existing ecological value of the site.

1 Introduction

1.1 BACKGROUND INFORMATION

1.1.1 WSP Environmental Limited undertook an Ecological Constraints Study of the Worthing Hospital Site on 3rd November 2008, on behalf of Western Sussex Hospitals NHS Trust. The site is proposed for redevelopment in order to deliver upgraded hospital facilities, including a new wing. The purpose of the constraints survey was to identify any key ecological constraints to the redevelopment proposals.

1.1.2 The constraints walkover identified that the detached and semi-detached residential buildings (some are used for hospital related purposes) on site had the potential to support roosting bats. Of these buildings, the 16 dwellings along Park Avenue in the north of the hospital (nos 33-63) fall within the proposed development footprint and are proposed for demolition. Internal and external bat inspections of these buildings were commissioned in January 2009 in order to determine presence/absence of bats. This report documents the findings of the survey.

1.2 RELEVANT LEGISLATION

1.2.1 All species of bat (*Chiroptera spp*.) and their roosts are protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and The Conservation (Natural Habitats, &c) Regulations 1994 (as amended by the Conservation (Natural Habitats, &c) (Amendment) Regulations 2007). The latter is commonly referred to as the Habitat Regulations.

1.2.2 This legislation makes it an offence to kill, injure, capture or disturb bats or obstruct access to, damage or destroy bat roosts. In law a roost is defined as any structure or place used for shelter or protection. This includes houses and outbuildings and applies throughout the year whether bats are present or not at the time of survey or work being carried out.

1.2.3 In addition, the Habitat Regulations translate the requirements of the European Commission (EC) Habitats Directive 1992 into UK domestic law and oblige the UK to protect sites that are important for bats.

2 Methodology

2.1 DESK STUDY

2.1.1 A desk study exercise was undertaken in November 2008 to support the constraints study. At least five species of bats have been recorded from within 2km of the Site (Sussex Biological Records Centre, 2008) (serotine *Eptisecus serotinus*, noctule *Nyctalus noctula*, pipistrelles *Pipistrellus sp*., including *Pipistrellus nathusii* and brown long-eared bat *Plecotus auritus*).

2.2 FIELD SURVEY

2.2.1 All 16 houses were internally and externally inspected on 12th February 2009. The surveys were lead by Angela Bond BSc (Hons) MIEEM, who is a Senior Ecologist for WSP Environmental with three years of bat survey experience. Angela holds a Natural England Science and Education licence for Bats (licence number 20082865). Angela was assisted by Joanna Miller, a WSP Consultant.

2.2.2 The external and internal inspection survey was undertaken in accordance with the methodologies described within the Bat Survey Guidelines (BCT, 2007). The aim of this survey was to assess the current potential of the building to support bats and to look for any evidence of roosting bats. Surveyors were equipped with ladders, close focusing binoculars and an endoscope and searched for suitable roosting opportunities and access points (such as loose or missing tiles, missing mortar, raised lead flashing or gaps beneath the eaves) and characteristic field signs of bats (such as bat droppings, scratch/wear marks, feeding remains or actual bats).

2.2.3 Access was possible to all of the houses and into all of the roof voids. External views to some of the ridge-tiles were obscured due to the close proximity of neighbouring houses (a limited number of good vantage points). There were no significant limitations to the survey.

3 Results

3.1 SITE LOCATION AND OVERVIEW

3.1.1 Worthing Hospital is in Worthing, West Sussex, NGR TQ153 032. The hospital is situated on the east side of Worthing town centre, south of the railway line and less than 800m from the coast. Although the hospital is located in an urban setting, the buildings along Park Lane back onto a large area of open space; Homefield Park, which is likely to provide good foraging grounds for some bat species. The hospital itself also supports mature vegetation which would provide dark flight corridors for bats.

3.2 BUILDING DESCRIPTION

3.2.1 The houses along Park Avenue were built in the 1920s or 1930s and comprise two-storey semi-detached buildings of brick construction with pitched, concrete tile roofs. The roofs are hipped to a central chimney stack and each house has a dormer on the south face, over bay windows (see plate 1).

3.2.2 The construction style of the roofs means that the only gable ends are in the dormers and whilst these appeared to provide good access points for bats from external inspection, views for the roof interior confirmed that each dormer is tightly sealed (with chip-board or wooden battens and plaster) preventing access to the roof void at this point.

3.2.3 The roofs have open eaves with wooden facia boarding and suitable access points were present at these eaves (there are soffit boxes under the dormer on the south side, which are in good condition and do not allow access). No loose or lifted tiles were observed during external inspection. Although access points around the lead flashing at the chimney stacks was considered likely from external inspection, the internal inspection revealed no visible access points at the chimney stacks.

3.2.4 The roofs are wooden-framed with concrete interlocking tiles on wooden battens. Thick bitumen felt lines the roof voids and this is peeling away in a number of places (allowing some views into the cavity between the lining and the tiles). Visible internal access points were limited to the open eaves. However, evidence of broken tiles was found in the roofs (presumably squirrel damage, see below) and therefore it was concluded that there must be access points where tiles have been broken, and these are most likely obscured by the bitumen roof lining. Once in to this cavity (between tiles and lining), bats would be able to move freely around the roof space, since there were many gaps, tears and ‘flaps’ leading into the main roof void.

3.2.5 The internal roof joists are generally quite thick (perhaps 2 inch x 4 inch) and provide good roosting opportunities where they converge at the apex of the hips and at other joints in the roof. The chimney stacks are a combination of brick and breezeblock and there are gaps in the mortar and loose bricks which create crevices suitable for roosting bats (see Plate 2).

3.3 FIELD EVIDENCE

3.3.1 No field signs for bats were observed externally or internally in any of the 16 buildings surveyed.

3.3.2 Evidence of mouse, rat and squirrel was observed in most of the roof voids, with squirrels an apparent particular problem. Dreys were present at several locations, along with urine stains, squirrel droppings and feeding remains (predominantly acorns). A dead squirrel was present in no. 61. Many of the roof voids contained broken tiles, broken chimney pots, chewed and splintered joists and other evidence of damage that has presumably been caused by squirrels. The roof insulation in most of the voids had been disturbed to some extent (e.g. moved around/ chewed up) and this is likely to have been caused either by squirrels or rats.

3.3.3 The roof voids supported a high number of cobwebs (see Plate 3).

4 Discussion and Recommendations

4.1 INTERPRETATION OF FINDINGS

4.1.1 It is considered bats are likely absent from the roof voids for the following reasons;

- No positive evidence found, despite good access for internal inspection;
- The rafters and exposed brick walls were heavily cobwebbed in most roof voids (frequently occupied bat roosts often are relatively free of cobwebs);
- Few access points (i.e. no access at gable ends, no obvious access at chimney stacks).

4.1.2 Furthermore, it is considered that the roof voids do not provide suitable hibernation conditions for bats for the following reason;

- The survey was undertaken within the peak hibernation period (December – February inclusive) and during a cold day (external temperatures less than 6°C). Therefore, the likely winter conditions in the roof spaces were experienced. The buildings are all occupied by tenants and every dwelling had the heating on continuously at the time of survey. This made the roof voids too warm for hibernating bats. The roof voids were also too dry to support hibernating bats.

4.2 RECOMMENDATIONS

Recommendations relating to 33-63 Park Avenue

4.2.1 Roosting bats are not considered to be a constraint to the redevelopment of this row of houses. The buildings are unsuitable for hibernation, and it is considered extremely unlikely that any maternity or other significant roost could remain undetected, due to the good access for survey and the construction of the buildings.

4.2.2 However, bats are cryptic animals, and transitional/occasional roosts can be very difficult to detect. The buildings have some (low-moderate) potential to support bats during the summer months and, despite the absence of positive evidence of bats, we recommend that the demolition of the buildings is undertaken between September – April inclusive as a precautionary measure. By taking this precaution, it is considered that any potential adverse impact to bats resulting from demolition will be avoided.

Other recommendations relating to bats

4.2.3 The desk study has identified that bats are present in the local area, and a small number of mature trees are present within the hospital grounds/ gardens of Park Avenue that may be suitable for roosting bats. Should the retention of any individual mature tree on site not be possible, the tree should be assessed for its potential to support bats (by an appropriately experienced surveyor). Such surveys can be undertaken at any time of year, but October-March is optimal, as the foliage is absent (allowing better views of potential roosting features). This will ensure that any potential impacts to tree-roosting bats can be avoided, and that any legislative obligations can be met.

4.2.4 If there is to be an extensive loss of mature vegetation (i.e. mature trees and plantation woodland), evening and dawn activity surveys should also be undertaken across the Site between May and September (on two separate survey occasions) to record bat activity around features identified as being suitable for commuting and foraging bats, and highlight key habitats for bats.

4.2.5 We recommend that the retention of existing mature foliage and the new provision of bat foraging habitat (native species of scrub, trees and grasses that are managed for wildlife) is considered during the masterplanning phases of the scheme design, in order that no net loss in biodiversity can be demonstrated. Where possible, a net gain in biodiversity should be sought, in line with the objectives set out in Planning Policy Statement 9; Biodiversity and Geological Conservation.

5 Conclusions

5.1.1 Houses 33-63 Park Avenue are considered to hold low-moderate potential to support bats during the summer months and no potential to support hibernating bats overwinter.

5.1.2 No evidence of bats was found during the internal and external inspections and bats are considered likely absent from the roof voids.

5.1.3 Roosting bats are not considered to be a constraint to the redevelopment of this row of houses. However, it is recommended that demolition of the houses is programmed to occur during September – April inclusive as a precautionary measure, to preclude any risk of adverse impacts to bats.

5.1.4 Should the retention of any individual mature tree on site not be possible, the tree should be assessed for its potential to support bats (by an appropriately experienced surveyor). This will ensure that any potential impacts to tree-roosting bats can be avoided, and that any legislative obligations can be met.

5.1.5 If there is to be an extensive loss of mature vegetation (i.e. mature trees and plantation woodland), evening and dawn activity surveys should also be undertaken across the Site between May and September (on two separate survey occasions) to record bat activity around features identified as being suitable for commuting and foraging bats, and highlight key habitats for bats.

5.1.6 We recommend that the scheme design should seek to retain existing mature foliage and should include new planting of native species where possible, in order to avoid adverse ecological impacts and to seek enhancement of the existing ecological value of the site.

Appendix A Plates



Plate 1: Park Avenue – showing dormers in roofs.



Plate 2: brick and breeze-block wall with gaps suitable for roosting



Plate 3: High quantity of cobwebs internally, reducing likelihood of bat presence.