GOSH CCC
Preliminary Ecological Appraisal

17/05/2022
GOSH Children's Cancer Centre
Planning Application (04)

NHS
Great Ormond Street Hospital for Children
NHS Foundation Trust

CIEEM REGISTERED PRACTICE 2022-2023

MANAGEMENT SYSTEM CERTIFICATION DNV·GL ISO 9001 = ISO 14001 ISO 45001

ADAS

Quality Assurance

Author	Checked	Approved
Sebastian Phelan BSc (Hons) ACIEEM	Sarah Thornton-Mills BSc (Hons) MSc MCIEEM	James Simpson BSc (Hons) MSc MCIEEM CEcol
		

The information which ADAS has prepared and provided is true, and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

Disclaimer

RSK ADAS Ltd (ADAS) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and ADAS. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by ADAS for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of ADAS and the party for whom it was prepared.

Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

This work has been undertaken in accordance with the quality management system of RSK ADAS Ltd.

Revision History

ADAS Ref (Revision number)	Date	Amendment
GOSH Children's Cancer Centre Planning Application (00)	05.02.20	INITIAL REPORT
GOSH Children's Cancer Centre Planning Application (01)	18.01.22	Update following client comments and design amendments
GOSH Children's Cancer Centre Planning Application (02)	11.03.2022	Update following comments from GOSH Trust
GOSH Children's Cancer Centre Planning Application (03)	13.05.2022	Update to include amended redline and standard wording
GOSH Children's Cancer Centre Planning Application (04)	17.05.2022	Update following comments from GOSH Trust

Contents

Appendices

Appendix 1: Proposed Plans

Appendix 2: Frame of Reference for Geographical Context

Appendix 3: Phase 1 Habitat Survey Map

Appendix 4: PRA Photographs

Appendix 5: Photographs

Summary

ADAS was commissioned by John Sisk & Son (Holdings) Ltd to undertake a Preliminary Ecological Appraisal (PEA) to support the redevelopment of the Great Ormond Street Hospital (GOSH) Frontage Building comprising demolition of the existing building and erection of a replacement 8 storey hospital building (Class C2 Use) together with 2 basement floors, roof top, balcony and ground floor landscaped amenity spaces, cycle storage, refuse storage and other ancillary and associated works pursuant to the development. (See Appendix 1). The system of utility vaults (Building 2) underneath the walkway and carriageway adjacent to existing Frontage Building are proposed to be filled with concrete to increase the integrity of the hardstanding above. All existing trees within the site boundary are to be removed for construction logistical purposes and replaced.

ADAS Senior Ecological Consultant Sarah Thornton-Mills and Ecological Consultant Sebastian Phelan undertook the survey of the site, including an assessment of any connected habitats, on 24th January 2020. A desk study showed nine statutory site within 5km of the site, which will not be negatively impacted by the proposed development.

The survey identified that the site had habitats common to urban areas including, bare ground (hardstanding), buildings, introduced shrub and scattered trees. The site held low potential for roosting and foraging bats, with Building 2 (utility vaults) identified as having low suitability for roosting bats. The buildings and scattered trees had potential for nesting birds.

Based on the findings of the external Preliminary Roost Assessment (PRA), bat surveys of the utilities vault are recommended. Based on the outcome of the further bat surveys, additional mitigation and compensation may be required.

Due to the removal of habitat features for the development of the site, compensation and enhancement of ecological features is required to adhere to local and national planning policy. In accordance with local policy A3, section 6.68, and in line with Camden BAP Action Plan No.2.2 and Camden Development Policy 22, measures to promote the green infrastructure is provided, enhancing the sites ecological potential and helping to achieve biodiversity net gain. Further enhancement and compensation measures recommended include the installation of five bird boxes, additional native planting and installation of four insect hotels. These recommendations and those set out within the mitigation and enhancement table below will be the subject of discussions with GOSH to understand risks associated with their implementation due to hospital biohazard requirements and risk associated with immunocompromised patients.

Summary of Further Survey or Actions

The table below provides information on further surveys, mitigation measures and enhancement measures to be undertaken on site.

Survey/Action	Rationale	When
Bat building(s) emergence/re- entry survey	Buildings 2 (utility vaults) provided low potential to support bat roosts. Once full access to the utilities vaults can be arranged and asbestos pipe lagging has been made safe, further internal inspection of the vaults should be carried out to ascertain whether roosting bats are using the feature. Further recommendations and actions may be proposed after the results from the recommended surveys are carried out.	Pre-development phase
Nesting birds	The buildings and any trees on site to be removed will require checking for nesting birds if demolition/clearance works are with the bird nesting period (March – August inclusive).	48 hours prior to any construction phase on site
Green infrastructure	Installation of green roofs/walls and/or additional native planting willprovide enhancement for the site to obtain local and national policy environmental targets.	Design phase
Bird box installation	Installation of five bird boxes is required to compensate for loss and enhance the site for nesting birds. At least five bird boxes should be installed on external walls of the new buildings. Bird boxes should be placed at least three metres from ground level. A combination of the 1HE Schwegler Brick Box, 1SP Schwegler Sparrow Terrace and Schwegler nestbox 1B should be used.	Construction phase
Insect hotel installation	Installation of four insect hotels on the new building to enhance the site for insects. Insect hotels should be installed at least two metres from ground level.	Construction phase

1 Introduction

1.1 Background and Survey Objectives

This PEA has been prepared on behalf of the Applicant, Great Ormond Street Hospital for Children NHS Foundation Trust (referred to hereafter as the 'Applicant') in collaboration with the appointed design and build contractor John Sisk & Son (Holdings) Ltd (referred to hereafter as Sisk) to support an application to the London Borough of Camden (LBC) for full planning permission for the redevelopment of the Great Ormond Street Hospital (GOSH) Frontage Building and Entrance on Great Ormond Street WC1N 3JH X (referred to hereafter as the 'site'), to provide a new Children's Cancer Centre (CCC).The aim of the PEA is to identify ecological constraints to the proposed works and make recommendations for mitigation or opportunities for enhancement that can be incorporated into the design. The PEA also makes recommendations for further surveys, as required.

The aim of the PRA is to assess the presence or likely absence of roosting bats within trees and buildings and establish the need for further surveys or recommendations.

The report has been prepared in accordance with guidance produced by the Chartered Institute of Ecology and Environmental Management (CIEEM 2017) and the British Standard 42020:2013.

The objectives of this report are:

- *To identify designated nature conservation sites within the vicinity of the site;*
- *To identify any records and/or populations of protected, notable or scarce species in the vicinity of the site;*
- *To record habitats or features of ecological interest within or in immediate proximity to the site;*
- *To record the presence of, or potential for, protected or notable species;*
- *To make an ecological assessment and highlight potential ecological constraints;*
- *To outline any further survey work and potential protected species requirements if relevant; and*
- *To make suggestions for avoidance, mitigation compensation and enhancements in line with planning policies where appropriate.*

1.2 Site Description

The site is located in central London adjacent to the B502 and Queen Square Gardens (Grid ref: TQ 30497 82017). The site was mainly comprised of hardstanding and buildings, with a small area of ornamental planting and garden. The site boundary also encompassed half of Great Ormond Street, with several roadside trees.

The wider landscape was urban, comprised of various buildings, roads and gardens. Coram's Fields was located 300m north, with the River Thames approx. 1.35km south. An approximate site boundary is provided within Figure 1 below.

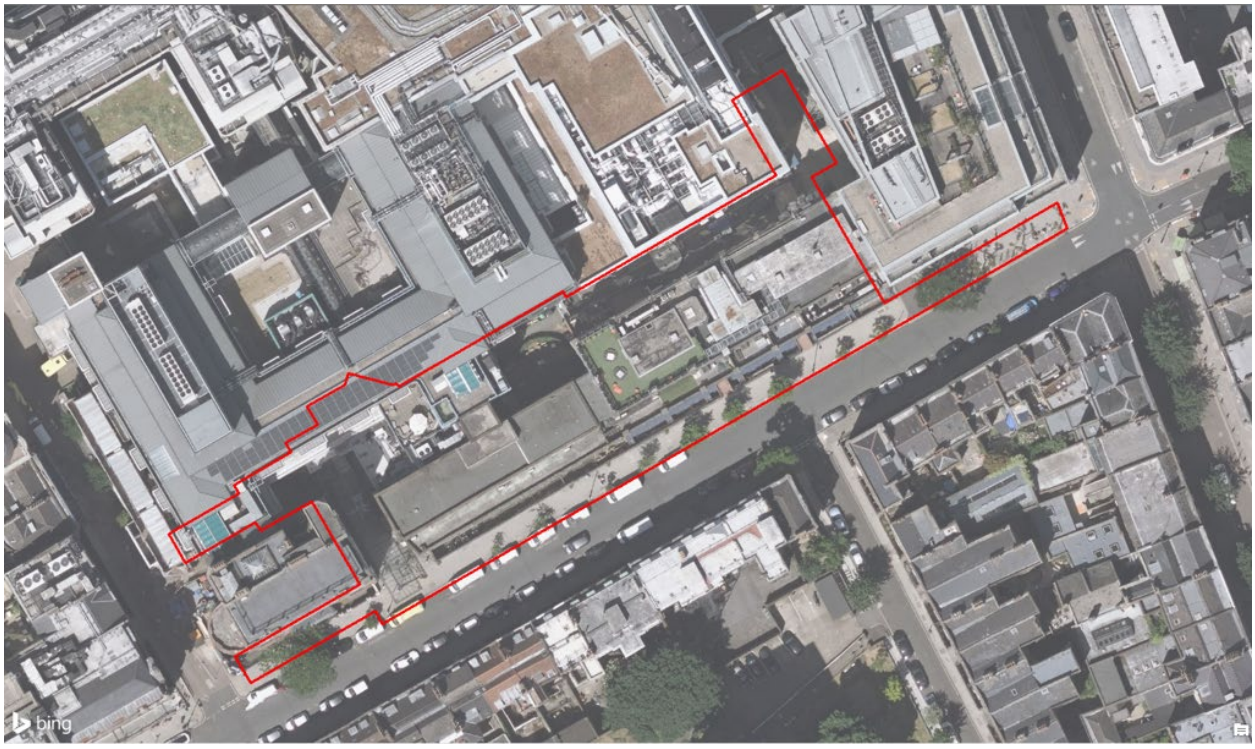


Figure 1. Site location and wider landscape (site indicated by red line boundary)

Imagery taken from Microsoft Virtual Earth (Bing). May 2022.

1.3 Description of the Proposed Development

The redevelopment of the Great Ormond Street Hospital (GOSH) Frontage Building comprising demolition of the existing building and erection of a replacement 8 storey hospital building (Class C2 Use) together with 2 basement floors, roof top, balcony and ground floor landscaped amenity spaces, cycle storage, refuse storage and other ancillary and associated works pursuant to the development (see Appendix 1). There is a system of utility vaults (Building 2) underneath the walkway adjacent to the buildings on Great Ormond Street. The vaults adjacent to the existing Frontage Building are proposed to be filled with concrete to increase the integrity of the hardstanding above. All existing trees in the public realm within the site boundary are to be removed during the enabling works to allow construction of the proposed development, new trees are currently proposed to be reinstated upon completion of construction operations.

2 Methodology

2.1 Desk Study

A desk study was carried out in January 2020 to identify statutory designated sites within a 5km radius and non-statutory designated sites of nature conservation importance, together with known records of protected and other notable species, within a 2km radius of the proposed development.

Multi-Agency Geographic Information for the Countryside (MAGIC) was used to derive information relating to the location of statutory designated sites and priority habitats.

Accountability provided details of non-statutory designated sites of nature conservation importance and records of protected and other notable species, on behalf of Greenspace Information for Greater London CIC.

It is important to note that most species are greatly under-recorded and therefore a lack of records for a location should not be taken as an absence of the species concerned. Furthermore, a record for a particular habitat or species does not necessarily confirm its current presence.

2.2 Field Survey

2.2.1 Extended Phase 1 Habitat Survey

A Phase 1 Habitat Survey was conducted on 24th January 2020 by Senior Ecologist Sarah Thornton-Mills BSc (Hons) MSc MCIEEM, and Ecological Consultant Sebastian Phelan BSc (Hons) ACIEEM, based on the techniques and methodologies described in the Handbook for Phase 1 Habitat Survey (JNCC 2010) and using standard nomenclature (Stace 2019). The habitats present were recorded on to a field map with written target notes providing supplementary information on, for example, species composition structure and management where relevant.

This was extended to include notes on fauna and habitats which could potentially support protected species, an approach commonly referred to as an Extended Phase 1 Habitat Survey. The presence of, or potential for, protected species was noted on the field map during the survey.

2.3 Preliminary Roost Assessment

A PRA was carried out by Senior Ecological Consultant, Sarah Thornton-Mills BSc (Hons) MSc MCIEEM, and Ecological Consultant Sebastian Phelan BSc (Hons) ACIEEM, on all buildings considered to be directly or indirectly impacted by the proposed development. This involved systematically checking the exterior, and the interior of buildings where access was granted, identifying and classifying any features or structures suitable for bat roosts, entry/exit points, including evidence of bats such as droppings or feeding remains. Each building was assessed for suitability to support roosting bats and categorised as negligible, low,

moderate or high, based on the Bat Conservation Trust (BCT) guidelines (Collins, 2016, see Table 1 below).

Equipment used during the building inspection included binoculars and a hand held LED torch.

Table 1: Habitat criteria as outlined by the Bat Conservation Trust (2016) for roosting, commuting and foraging bats

Suitability	Description of roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age but with none seen from the ground or features seen with only very limited roosting potential.	Habitat features that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated i.e. not very well connected to surrounding landscape by other habitat. Suitable but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree that could be used by bats due to their size, shelter, protection, appropriate conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only- the assessments in this table are irrespective of species conservation status, which is established after presence is confirmed.	Continuous habitat connected to the wider landscape that could be used by vats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

2.4 Assessment and Evaluation

The importance of the features on site were assessed and defined in a geographical context (see Appendix 2). The frame of reference for the habitat features in terms of their geographical importance is in line with guidance set out in CIEEM, 2018.

Species are assessed, where appropriate, against best practice guidelines.

As part of the evaluation further surveys may be recommended based on the suitability of habitats to support protected species, the habitats themselves and potential impacts posed by the proposed development and the legal protection afforded to both habitats and species.

2.5 Zone of Influence

The assessment conducted for this report has considered the area in which ecological features could be subject to significant effects from the proposed development. The area of the potential effects is often wider than the actual perimeter of the development site and is known as the Zone of Influence.

The Zone of Influence varies for different ecological features and each designated site, habitat and species has been considered in relation to their sensitivity to the proposed development.

2.6 Limitations

During the time of the survey an existing plant room on the roof of Frontage Building (Building 1) could not be accessed to assess for roosting bat suitability or nesting bird use, further internal inspection of this area should be undertaken once access can be gained, results will be presented within an updated report. The utility vaults (Building 2) could not be fully assessed for bat suitability/evidence due to locked doors and asbestos pipe lagging restricting access. In line with best practice guidelines a detailed PRA should be undertaken once full access to the utilities vaults can be arranged and asbestos pipe lagging has been made safe. The survey was not undertaken within the optimal period for Phase 1 Habitat Surveys (May-August inclusive), however, due to the lack of flora on site, this is not considered to be a constraint. Due to design changes, two areas were not in the original scope during the field survey and have been highlighted within the report.

3 Baseline Ecological Conditions

3.1 Desk Study

A total of nine statutory sites were identified within 5km of the site all of which were Local Nature Reserved (LNR). Additionally, 46 non-statutory sites were identified within 2km of the site, all of which were Sites of Importance for Nature Conservation. See Table 2 below for further details.

Table 2: Statutory and non-statutory designated sites within 5km and 2km of the survey site

Site Name	Description	Designations	Distance from site
Statutory Designated Sites			
Camley Street Nature Park	Camley Street Nature Park was formerly the old coal drop off for King's Cross Railway Station, since it demolition in the 1960s the site has become importantfor wildlife in the area and I know for supporting a diverse range of species including reed warblers (*Acrocephalus scirpaceus*), kingfishers (*Alcedo atthis*) and multiple species of bat.	LNR	1.37km North
Barnsbury Wood	In the 1840s the site was originally formal gardens surrounded by terraced buildings, since then it has been unmanaged and Barnsbury Wood is now a 0.32hawoodland.	LNR	2.17km North
St John's Wood Church Grounds	Located on the site of an old churchyard and its surrounds this LNR contains hedgerows, wildflower glades, meadows and mixed woodland. It is known for supporting species such as grey sedge (*Carex divulsa*) and multiple butterflies.	LNR	3.37km North West
Adelaide	A 0.28ha site consisting of meadows, ponds, scrub and a small woodland.	LNR	3.56km North West
Gillespie Park	Gillespie Park consists of grassland and pond areas and is known for supporting a wide range of species including Hungarian vetch (*Vicia pannonica*), reed bunting (*Emberiza schoeniclus*) and Roesel's bush cricket (*Metrioptera roeselii*).	LNR	4.02km North
Belsize Wood	A 0.27ha site that is known for supporting a diverse range of flora and invertebrate species.	LNR	4.3km North West
Battersea Park Nature Areas	Covering 2.9ha Battersea Park Nature areas consist mostly of managed grassland with scrub and hedgerows located along the perimeter. The site supports a diverse range of species including white letter hairstreak butterfly (*Satyrium w-album*) and flower bug (*Anthocoris minkii*).	LNR	4.78km South

Site Name	Description	Designations	Distance from site
Non-statutory Designated Sites			
Coram's Fields	A formal park including sports fields and areas managed using livestock. Within the east of the site is awildlife garden containing a pond.	SINC	0.3km North
St George's Gardens	An old churchyard containing mature trees, amenity grassland, a planted shrubbery. The area is known for providing nesting opportunities to a range of common birds.	SINC	0.41km North East
Russell Square	An area of amenity grassland and planted shrubbery with scattered trees and a hedgerow.	SINC	0.41km South West
St Andrew's Gardens	An old churchyard that consists of a range of lawns, flower beds, shrubberies and a wildlife area supportinga diverse range of plant species.	SINC	0.45km North East
Calthorpe Community Garden	A large community garden consisting of scattered trees, a rockery, ponds, and semi-improved grassland. The garden is managed to be wildlife friendly.	SINC	0.51km North East
Lincoln's Inn Fields	An area of amenity grassland and planted shrubbery with scattered trees and a hedgerow. Known for providing nesting opportunities to a range of common birds.	SINC	0.73km South East
Wilmington Square	A public square consisting of amenity grassland, scattered trees and ornamental planning.	SINC	0.78km North East
Gordon Square	An area of amenity grassland and planted shrubbery with scattered trees. Known for providing nesting opportunities to a range of common birds.	SINC	0.85km North West
Spa Fields Gardens	A landscaped park that contains amenity grassland lawns, scattered trees and ornamental planting.	SINC	0.89km North East
Lloyd Square	Constructed in 1828 Lloyd square consists of amenity grassland, scattered trees, and ornamental planting. The site is managed for supporting wildlife.	SINC	0.92km North East
Skinner Street OpenSpace	A park containing areas of amenity grassland and mature scattered trees. The site contains planning designed to increase wildlife on the site including scruband tall ruderal.	SINC	0.98km North East
Phoenix Garden	A large community garden consisting of open meadow,a rockery and ponds. The site supports large range of common bird species.	SINC	1km South West

Site Name	Description	Designations	Distance from site
Spa Green Garden	A public gardens consisting of amenity grassland and an ornamental shrubbery.	SINC	1.14km North East
Claremont Square Reservoir	A small, covered reservoir that supports a diverse grassland and ornamental shrubbery.	SINC	1.17km North East
St John's Gardens	An old churchyard that consists of scattered trees, ornamental flowerbeds and improved agricultural grassland.	SINC	1.1km East
Winton Primary School Garden	A nature garden associated with a school. The site contains a pond, scattered trees and semi-improved grassland. It is used for environmental education purposes.	SINC	1.2km North
London's Canals	The canals of London are a known for supporting manyspecies of fish, aquatic plants and breeding waterfowl.	SINC	1.27km North
Claremont Close Lawns	The lawns of Claremont Close are managed as amenity grassland and supports a diverse range of plant speciesincluding heather (*Calluna vulgaris*).	SINC	1.28km North East
Charterhouse	Ornamental gardens planted with a diverse range of plants. This site is known for supporting a range of birds and invertebrates.	SINC	1.3km East
Temple Gardens	One of the largest areas of open space within London city. The gardens are formally managed however support a range of species including spotted flycatcher (*Muscicapa striata*) and song thrushes (*Turdus philomelos*).	SINC	1.3km South East
Victoria Embankment Gardens: Temple Section	A small park containing habitats such as amenity grassland, scattered trees and ornamental planting.	SINC	1.3km South East
Middle Temple Garden (Westminster section)	One of the largest areas of open space within London city. The gardens are formally managed however support a range of species including spotted flycatcher (*Muscicapa striata*) and song thrushes (*Turdus philomelos*).	SINC	1.34km South East
Camley Street Natural Park	Supports a large amount of species such as maidenhair spleenwort (*Asplenium trichomanes*). It is also known for supporting Snipe (*Gallinago gallinago*) and chiffchaff (*Phylloscopus collybita*) populations.	SINC	1.37km North West

Site Name	Description	Designations	Distance from site
River Thames and tidal tributaries	The Thames river and its tributaries offer a range of habitats that are rare within the city of London including saltmarsh. This site also acts as a wildlife corridor running through the centre of the city.	SINC	1.4km South West
Victoria Embankment Gardens: Main Garden	A park containing habitats such as amenity grassland, scattered trees and ornamental planting. There are several small ponds on the site. The site contains suitable habitat for a number of common breeding birds.	SINC	1.5km South
King Square Garden	An area of large public open space consisting of amenity grassland, scattered trees and ornamental planting.	SINC	1.52km North East
Culpeper CommunityGarden	A former bomb site that has been in used as allotmentsand a garden since the 1980s. Part of the gardens are managed for wildlife which contains three wildlife ponds.	SINC	1.57km North East
Moreland Primary School Garden	A nature garden associated with a school. It includes a pond, wildflower planning, and allotments. This site is used for educational purposes.	SINC	1.57km North East
St Pancras Gardens	An old churchyard that contains mature trees such as London plane (*Planranus x hispanica*), and Poplar (*Populus sp.*), a yew (*taxus baccata*) hedgerow and amenity grassland.	SINC	1.7km North West
Barnard Park	A public park that consists of species-poor amenity grassland and parkland trees.	SINC	1.77km North East
Roman Wall, Noble Street	A roman era wall that has been colonised by wild plants.	SINC	1.77km South east
Fortune Street Garden	A small park with areas managed for wildlife and areas managed for amenity use.	SINC	1.8km East
The Barbican and St Alphage's Gardens	Containing architecture from the 1970s and the Romanperiod the site supports a wide range of species including harts tongue fern (*Phyllitis scolopendrium*) and black spleenwort (*Asplenium adiantum-nigrum*).	SINC	1.81km East
Victoria Embankment Gardens: Whitehall Garden	A pubic garden containing a number of habitats such asamenity grassland, scattered trees and ornamental planting. The site is known for supporting a range of common birds.	SINC	1.81km South

Site Name	Description	Designations	Distance from site
Park Square Gardens	A private garden between Regents Park and Marylebone road. The site contains a range of mature trees including London plane, lime (*Tilia sp*.), horse chestnut (*Aesculus hippocastanum*), sycamore (*Acer pseudoplatanus),* copper beech (*Fagus sylvatica var purpurea*), silver birch (*Betula pendula*), hornbeam (*Carpinus betulus*) and frequent holly (*Ilex aquilifolium*).	SINC	1.81km West
St Paul's Cathedral gardens	The site contains amenity grassland, ornamental planting and scattered trees and is known for providingnesting opportunities to common bird species.	SINC	1.84km South East
St Luke's Churchyard, Old Street	Gardens associated with a former church. The site consists of amenity grassland, scattered trees and ornamental planting. The site provides suitable habitat for a number of common bird species.	SINC	1.87km North East
Radnor Street OpenSpace	An area of open green space with hedgerows and ornamental planting.	SINC	1.87km North East
Bingfield Park	A large area of public open space consisting of amenity grassland and planted shrubbery. The site provides nesting and foraging habitat for common bird species.	SINC	1.9km North
Redbrick Estate	Managed for wildlife and containing meadow areas, scattered trees and tall ruderal.	SINC	1.94km North East
St James's Square	A privately managed garden that contains amenity grassland, scattered trees and ornamental planting. The site is known for providing suitable nesting opportunities for birds.	SINC	1.97km South West
Aldermanbury Gardens	On the site of the former Wren church of St. Mary, which was destroyed during WWII. The site consists of amenity grassland, ornamental planting and scattered trees.	SINC	1.99km South East
Thornhill Square	Constructed in the 1850s Thornhill Square consist of amenity grassland, scattered trees and ornamental planting.	SINC	2.02km North
Copenhagen Junction	The cuttings of an active railway line forms a mosaic of open and wooded habitats.	SINC	2.11km North
St James's Park, Green Park and Buckingham Palace Gardens	Three formal parks that form a large area of open green space within central London. Consisting of amenity grassland, ponds and lakes, scattered parkland trees and large mature trees.	SINC	2.33km North East

Site Name	Description	Designations	Distance from site
Regent's Park	The site contains an ornamental lake and a number of mature trees. It is particularly important for supportinga range of breeding and migrant birds. Including the largest breeding population of grey heron (*Ardea cinerea*) in London.	SINC	2.66km North West

A data search was carried out by eCountability, this showed that over the last 10 years within 2km of the site there have been 25 notable species of bird recorded, four species of bat, two species of terrestrial mammal, two species of amphibians and four notable invertebrate species. Details of notable and protected species relevant to the site are included within Table 3.

Table 3: Records of selected protected or notable species within 2km of the site within the last ten years.

Species	Designation	Date	Distance from site	Approx. location
Starling (*Sturnus vulgaris*)	BOCC Red, UKBAP, NercS41, LBAP	2019	1.41km North	Unknown - Location confidential
Herring gull (*Larus argentatus*)	BOCC Red, UKBAP, NercS41, UKBAP, LBAP	2019	1.63km East	Unknown - Location confidential
House sparrow (*Passer domesticus*)	BOCC Red, NercS41, UKBAP, LBAP	2019	1.63km East	Unknown - Location confidential
Swift (*Apus apus*)	BOCC Amber, LBAP	2017	1.76km East	Unknown - Location confidential
Black redstart (*Phoenicurus ochruros*)	BOCC - Red, WCA 1, LBAP	2017	1.83km South East	Unknown - Location confidential
Common pipistrelle (*Pipistrellus pipistrellus*)	EPS, LBAP, WCA5	2019	1.42km North	Unknown - Location confidential
Noctule (*Nyctalus noctula*)	EPS, WCA5, NERC S41, UK BAP, LBAP	2011	1.42km North	Unknown - Location confidential
Soprano pipistrelle (*Pipistrellus*	EPS, LBAP, UKBAP, WCA5, NercS41	2017	1.42km NorthWest	Unknown - Location

Species	Designation	Date	Distance from site	Approx. location
pygmaeus)				confidential
Daubenton's bat (*Myotis daubentonii*)	EPS, LBAP, UKBAP, WCA5, LBAP	2010	1.8km North West	Unknown - Location confidential
Nathusius's pipistrelle (*Pipistrellus nathusii*)	EPS, WCA5, LBAP	2013	1.93km South East	Unknown - Location confidential
Starling (*Sturnus vulgaris*)	BOCC Red, UKBAP, NercS41, LBAP	2019	1.41km North	Unknown - Location confidential
Herring gull (*Larus argentatus*)	BOCC Red, UKBAP, NercS41, UKBAP, LBAP	2019	1.63km East	Unknown - Location confidential
House sparrow (*Passer domesticus*)	BOCC Red, NercS41, UKBAP, LBAP	2019	1.63km East	Unknown - Location confidential
Swift (*Apus apus*)	BOCC Amber, LBAP	2017	1.76km East	Unknown - Location confidential
Black redstart (*Phoenicurus ochruros*)	BOCC - Red, WCA 1, LBAP	2017	1.83km South East	Unknown - Location confidential
Common pipistrelle (*Pipistrellus pipistrellus*)	EPS, LBAP, WCA5	2019	1.42km North	Unknown - Location confidential
Noctule (*Nyctalus noctula*)	EPS, WCA5, NERC S41, UK BAP, LBAP	2011	1.42km North	Unknown - Location confidential
Soprano pipistrelle (*Pipistrellus pygmaeus*)	EPS, LBAP, UKBAP, WCA5, NercS41	2017	1.42km NorthWest	Unknown - Location confidential
Daubenton's bat (*Myotis daubentonii*)	EPS, LBAP, UKBAP, WCA5, LBAP	2010	1.8km North West	Unknown - Location confidential

Species	Designation	Date	Distance from site	Approx. location
Nathusius's pipistrelle (*Pipistrellus nathusii*)	EPS, WCA5, LBAP	2013	1.93km South East	Unknown - Location confidential

EPS=European Protected Species (Habitats Directive/Birds Directive)

WCA1 = Wildlife and Countryside Act 1981 Schedule 1

WCA5 = Wildlife and Countryside Act 1981 Schedule 5

NercS41 = Natural Environment and Rural Communities Act Section 41 species

BOCC red/amber = Birds of Conservation Concern Red/Amber

LBAP = Local priority species

UKBAP = UK species of principal importance

3.2 Field Survey

The habitats identified within the Extended Phase 1 Habitat Survey are listed and described below. All habitats are marked on the Phase 1 Habitat map in Appendix 3, PRA Notes are illustrated in Appendix 4 and each habitat type is illustrated with a photograph in Appendix 5.

On site:

- *Scattered Broad-leaved Trees;*
- *Introduced Shrub;*
- *Fence;*
- *Building; and*
- *Bare Ground.*

3.2.1 Habitats

3.2.1.1 Scattered Broad-leaved Trees

Five young Snowy Mespilus (*Amelanchier sp.),* four young Pride of India (*Koelreuteria paniculata*) and one young Cotoneaster Tree (*Cotoneaster frigidus*) were present along Great Ormond's Street within the site boundary (Appendix 5, photograph 1). Beneath the trees were small squares (0.5m²) of bare ground which supported occasional weed species. Due to the updated site boundary (January 2022), there are now four additional trees (likely False Acacia (*Robinia pseudoacacia*)) encompassed in the eastern end of the site.

3.2.1.2 *Introduced Shrub*

A small memorial garden was located adjacent the main entrance of the hospital, containing ornamental plant species including ornamental heathers, approximately 12m² in size. Potted ornamental plants were also present on the roof tops and outside entrances (Appendix 5, photograph 2).

3.2.1.3 *Fence*

A single metal mesh fence approximately 1.5m high and 14m long was present adjacent the northern boundary of the site, ivy (*Hedera helix*) had been planted beneath it so it could climb and cover the fence (Appendix 5, photograph 3).

3.2.1.4 *Buildings*

The site consists of one distinct building (approx. 0.15 ha). The Frontage Building (Building 1) consisted of a building referred to as the 'Frontage', a five-story building including a basement at level 1, comprised of brick and concrete with UPC window frames in good condition (Appendix 5, photograph 4). The roof was flat with some amenity space (Appendix 5, photograph 5).

There was also existing utility 'vaults' (Building 2), beneath the public footpath and carriageway of Great Ormond Street. These vaults were brick built with wooden doors, accessible from the lightwell corridor adjacent the façade of Building 1.

3.2.1.5 *Bare Ground*

Hardstanding was present throughout the site in the form of pathways, outdoor communal areas and a section of road, approx. 0.1ha. (Appendix 5, photograph 6).

3.2.2 Species

3.2.2.1 *Birds*

GIGL provided numerous records of Wildlife and Countryside Act 1982 (as amended) Schedule 1 species within 2km of the site. Table 3 provides details of birds which may use the buildings on site for nesting, however, there was no evidence of historical bird nesting during the site visit. The semi-mature trees on Great Ormond Street were the only vegetation likely to be suitable for common nesting birds on site.

3.2.2.2 *Bats*

GIGL recorded common pipistrelle, soprano pipistrelle, Nathusius's pipistrelle, Daubenton's and noctule bat species within a 2km buffer of the site.

The habitat across the site and the wider area provided low suitability for commuting and foraging habitats. This was due to the low amount of vegetation on site that could be utilised by foraging bats. The majority of trees lining Greater Ormond Street within the site boundary were too young and small to

provide a suitable commuting habitat feature to areas suitable for foraging, such as Queen Square Gardens and Coram's Fields.

All the buildings on site were given an initial Preliminary Roost Assessment (PRA) to determine any potential roost features (PRFs) to establish if any further bat surveys would be required.

3.2.2.3 Badgers

The site was considered sub-optimal for badger (*Meles meles*) to use or occupy due to the majority of hardstanding making foraging and sett creation unrealistic. No field signs were recorded on site and no biological records from GIGL showed this species in the wider area.

3.2.2.4 Hazel Dormouse

GIGL provided no records of hazel dormouse (*Muscardinus avellanarius*) within the wider area. There were no habitats or features on site that were suitable to support hazel dormice, and the connectivity to the wider landscape was limited due to the absence of landscape corridors for this species (hedgerows and woodland).

3.2.2.5 Otter

GIGL provided one record of otter (*Lutra lutra*) within 2km of the site, approx. 1.5km north (Regents Canal).

The site had no potential to support this species due to the habitats present and lack of running water. It is unlikely that this species is found in the wider area due to the urban environment, making it unsuitable to support this species.

3.2.2.6 Water Vole

GIGL provided one record of water vole (*Arvicola amphibious*) within 2km of the site, approx. 1.3km north (Regents Canal).

The site had no potential to support this species due to the habitats present and lack of running and still water. It is unlikely that this species is found in the wider area due to the urban environment, making it unsuitable to support this species.

3.2.2.7 Reptiles

GIGL provided no records of reptile species within the 2km buffer form the site.

The site did not provide suitable habitats for reptiles due to the lack of suitable cover to provide shelter and foraging opportunities to support and viable population of reptiles. The site also lacked connectivity to more suitable habitat such as semi-improved grassland, moors or heaths.

3.2.2.8 Amphibians

GIGL provided records of the common frog and common toad with the 2km buffer of the site within the last ten years.

The site did not have any water bodies which is required to support amphibians or any suitable hibernacula habitat. The closest waterbody recorded was c. 1.5km from the site.

3.2.2.9 Invertebrates

GIGL recorded the dark green fritillary butterfly (one occurrence), jersey tiger moth (three occurrences), cinnabar moth (four occurrences) and stag beetle (29 occurrences) within the wider area of the site in the last ten years.

The habitat on site provided no suitable opportunity for caterpillar food plants such as Common Dog-violet (*Viola riviniana*) for dark green fritillary, common nettle species (*Urtica spps*.) for jersey tiger moth or Common Ragwort (*Senecio jacobaea*) for cinnabar, making it unlikely to be used by these species. No suitable habitat was present on site for stag beetles such as dead wood or log piles.

3.2.2.10 White-clawed Crayfish

GIGL had no recordings of white-clawed crayfish (*Austropotamobius pallipes*). The site had no suitable habitats relating white-clawed crayfish as there was no running (or standing) water.

3.2.2.11 Non-native invasive plants

No non-native invasive plant species were observed during the Phase 1 Habitat Survey on site. GIGL recorded 36 occurrences of Japanese knotweed (*Fallopia japonica*) and three occurrences of Giant Hogweed (*Heracleum mantegazzianum*) within a 2km buffer from the site. However, the closest record of the above species was c. 1km north northeast of the site. Due to the distance from site, its impact is considered negligible on development.

3.3 Preliminary Roost Assessment

The site was subject to a Preliminary Roost Assessment (PRA). The Frontage Building (Building 1) was deemed to have negligible suitability for roosting bats. The utility vaults (Building 2) adjacent to the southern elevation of the Frontage Building extend under the public footpath and carriageway of Great Ormond Street. The vault complex was assessed to have low roosting bat potential.

The buildings were externally and internally inspected, where possible, for bat entry/exit points or roosting features and any field signs such as bat staining or droppings. The buildings were graded on the findings (Table 4). The site was considered to have low suitability for foraging and commuting bats. Further surveys will be required prior to any construction phases concerning the Frontage Building and existing utility vaults on site.

Table 4: Bat roost potential of buildings within the site boundary.

Building Number	Description	Roost Potential*
1 (The Frontage Building)	A six-story tall building with a basement on level 1 and flat roof, comprised of brick and concrete with UPC window frames in good condition. No potential access points or roost features observed.	Negligible
2 (Utility Vaults)	In front of the building at basement level were a series of brick 'vaults' which contained utility piping. These vaults were approx. 1.5m high by 1.5m wide and were located underneath the public footpath. Whilst the feature wassuitable for both roosting and hibernating bats the disturbance from the road above, potential temperature fluctuations from the utility piping and lack of suitable habitat in the immediate area made the structure largely unsuitable for roosting bats. Potential access points: ▪ Some of the doors to these vaults were open with holes in the walls also providing access (Appendix 4, PRA Note 5 and 6). Due to locked doors and asbestos pipe lagging in the vaults, a full internal inspection could not be carried out.	Low

4 Planning Policy and Legislation

4.1 Local Planning Policy

Table 5 details the policies within the Camden Local Plan which are relevant to the ecological features on site.

Table 5: Summary of relevant local planning policy – Camden Local Plan

Policy	Description
A3 Biodiversity	The Council will protect and enhance sites of nature conservation and biodiversity. We will: a. designate and protect nature conservation sites and safeguard protected and priority habitats and species; b. grant permission for development unless it would directly or indirectly result in the loss or harm to a designated nature conservation site or adversely affect the status or population of priority habitats and species; c. seek the protection of other features with nature conservation value, including gardens, wherever possible; d. assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed; e. secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor; f. seek to improve opportunities to experience nature, in particular where such opportunities are lacking; g. require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species; h. secure management plans, where appropriate, to ensure that nature conservation objectives are met; and i. work with The Royal Parks, The City of London Corporation, the London Wildlife Trust, friends of park groups and local nature conservation groups to protect and improve open spaces and nature conservation in Camden. **Trees and vegetation** The Council will protect, and seek to secure additional, trees and vegetation. We will: j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation; k. require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout; l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development; expect developments to incorporate additional trees and vegetation wherever possible.

4.2 National Planning Policy Framework

The National Planning Policy Framework (NPPF) July 2021 is an update to the previous version issued in February 2019 and is a policy framework document which provide a range of important principles. Paragraph 174 of the NPPF states that decisions should contribute to and enhance the natural local environment by:

'*Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.'*

Paragraph 175 goes on to state:

'… take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.'

When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles (paragraph 180):

'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'

4.3 Relevant Legislation

4.3.1 National Legislation

4.3.1.1 The Wildlife and Countryside Act 1981

The Wildlife and Countryside Act 1981 (as amended) consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the conservation of wild birds (Birds Directive) in Great Britain.

4.3.1.2 Natural Environment & Rural Communities Act 2006

Section 40 of the NERC Act 2006 places a duty upon all local authorities in England to promote and enhance biodiversity in all of their functions. Section 41 lists habitats and species of principal importance to the conservation of biodiversity. Fifty-six habitats and 943 species of Principal Importance for Conservation are included on the Section 41 list and draws upon the UK BAP List of Priority Species and Habitats.

4.3.2 Species Specific Legislation

4.3.2.1 Bats

Bats are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017. Under the Wildlife and Countryside Act 1981 it is illegal to:

- *Kill or injure bats;*
- *Cause disturbance at their resting places; or*
- *To block access to, damage or destroy their roost sites.*

Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- *Deliberately capture or kill a bat;*
- *To damage or destroy a breeding site or resting place of any bat. (This is an absolute offence and intent or recklessness does not have to be proved); and*
- *Deliberately disturb a bat (this applies anywhere, not just at its roost).*

4.3.2.2 Birds

Breeding wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). Under the Wildlife and Countryside Act, a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds however are not included in this definition (except for limited parts of the Act). They are covered by the Game Acts, which fully protect them during the close season.

All birds, their nests and eggs are protected and it is thus an offence, with certain exceptions to:

- *intentionally kill, injure or take any wild bird;*
- *intentionally take, damage or destroy the nest of any wild bird whilst it is in use or being built;*
- *intentionally take or destroy the egg of any wild bird;*
- *have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
    - *have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *use traps or similar items to kill, injure or take wild birds; and*
- *have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations.*

Additionally for some species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) it is an offence to intentionally or recklessly disturb the adults while they are in and around their nest or intentionally or recklessly disturb their dependent young.

5 Evaluation of Ecological Features/Further Survey

Table 6 below provides an evaluation of the ecological features, identifying which are of sufficient importance to be taken forward. Any ecological feature that is identified as negligible importance will not be considered further, where there is insufficient evidence further surveys will be recommended to be able to assess the ecological importance of that feature in relation to the site and the proposed development.

Table 6: Evaluation of ecological Feature

Ecological Feature	Justification	Level of Importance
Statutory designated site – SSSI and LNR	Camley Street Nature Park, Barnsbury Wood, St John's Wood Church Grounds, Adelaide, Gillespie Park, Belsize Wood and Battersea Park Nature Areas are a collection of statutory sites within a 5km buffer of the site. Given the low level of ecological complexity of the existing site, the location of the designated sites and the high level of residential dwellings in the buffer zone, it is unlikely that development could cause a negative impact on the designated sites.	Negligible value
Non-statutory designated site - SINC	There are a total of 47 non-statutory designated sites within 2km of the site. Given the low level of ecological complexity of the existing site, the location of the designated sites and the high level of residential dwellings in the buffer zone, it is unlikely that development could cause a negative impact on the designated sites.	Negligible value
Scattered broad-leaved trees	The non-native tree species, most young and recently planted, have no value, with the lime trees providing local value. The habitat the trees provide is considered an ecologically important habitat on site.	Local value
Introduced shrub	One small area (14m^2) of this habitat was present in the form of a memorial garden adjacent the main entrance. The habitat is not considered to be ecologically important.	Negligible value
Fence	A 14m long metal fence was present adjacent the northern boundary with ivy climbing up it.	Negligible value
Buildings	The buildings provided no habitat value environmentally.	Negligible value
Bare ground	The bare ground hardstanding provided no habitat value environmentally.	Negligible value
Birds	The site held limited potential for nesting birds within a single semi-mature tree. There was also limited availability for birds to utilise the buildings on site for nesting opportunities.	Local value

Ecological Feature	Justification	Level of Importance
Bats	Utility vaults (Building 2) on site were identified as having low suitability for roosting bats. The plant room was inaccessible and should be surveyed once access can be gained. The site and wider area had low potential for foraging and commuting bats.	Further surveys required
Badgers	No field signs were recorded on site, lack of connectivity and suitable habitats.	Negligible value
Hazel Dormice	The site did not have suitable habitats to support this species.	Negligible value
Otter	No field signs for this species were observed. The site has no running water which would support this species.	Negligible value
Water vole	No field signs for this species were observed. The site has no running and standing water which would support this species.	Negligible value
Reptiles	There was no suitable habitat on site to support reptiles and a lack of connectivity to any suitable habitat in the wider area.	Negligible value
Amphibians	There was no suitable habitat on site to support amphibians and a lack of connectivity to any suitable habitat in the wider area.	Negligible value
Invertebrates	GIGL records showed four notable invertebrate species within 2km of the site (see Table 4).	Negligible value
White-clawed crayfish	No white-clawed crayfish or suitable habitats to support this species were recorded on site.	Negligible value
Non-native invasive	No non-native invasive species were recorded on site.	Negligible value

6 Ecological Constraints, Opportunities and Recommendations

6.1.1 Habitats

6.1.1.1 Scattered broad-leaved trees

As part of the proposed development, it is proposed to remove all existing trees in the public realm identified within the red line plan during the enabling works to allow construction, with the installation of new trees in tree pits upon the completion of main construction works. It is recommended that in line with the Camden Local Plan the development should 'incorporate additional trees and vegetation wherever possible'. In addition to this, a development should protect existing trees and vegetation that will not require removal, whilst replacing any that are lost with native planting. It is understood that pruning to three Oak trees on the northern junction on Guilford Place will be required during enabling works. Further information on tree planting can be found in the Arboricultural report (ADAS, 2020).

6.2 Species and Species Groups

6.2.1 Birds

The site held potential for nesting birds in the scattered broad-leaved trees and the buildings on site with gaps suitable for birds to enter and outside ledging for certain bird species to utilise as nesting areas. The proposed development will demolish the existing Frontage Building (Building 1), which would negatively affect any nesting birds using this habitat. Ideally, the demolition of the building should take place outside the bird nesting season (March to August inclusive). If this is not possible a nesting bird check by a suitably trained person should be undertaken. This check must be undertaken a maximum of 48 hours prior to the clearance or development works.

The proposed development will provide a roof garden on Building 1 (see Appendix 1). This garden is likely to be accessed regularly by people meaning any planting is unlikely to be utilised by nesting birds. To compensate for the potential loss of nesting habitat and enhance the site for nesting birds, in line with the Camden BAP Action Plan No.2.5, the building and roof garden should incorporate at least 5 bird boxes and contain native planting. These recommendations will be the subject of discussions with GOSH to understand risks associated with their implementation due to hospital biohazard requirements and risk associated with immunocompromised patients.

House sparrow (*Passer domesticus*) were recorded in the local area. House sparrows are a Red Listed species, a Species of Principal Importance in England (NERC Act 2006) and have their own action plan in the London BAP. It is recommended that house sparrow terraces are installed on the new building on completion of the development. This should be a 1SP Schwegler Sparrow Terrace (as shown below) and either fixed on to the surface of the external wall or incorporated into the wall during construction. The

box should be placed at least 2.5m above ground, out of the reach of cats, with a clear access route to the entrance holes.

Figure 2: 1SP Schwegler Sparrow Terrace (NHBS 2018)

These recommendations will be the subject of discussions with GOSH to understand risks associated with their implementation due to hospital biohazard requirements and risk associated with immunocompromised patients.

Black redstart (*Phoenicurus ochruros*) were recorded in the local area. Black redstarts are a Red Listed species, a Schedule 1 species under the Wildlife and Countryside Act 1981 (as amended) and have their own action plan in the London BAP. It is recommended that 1HE Schwegler Brick Boxes (as shown below) are installed on the new buildings, these boxes can be either fixed on to the surface of the external wall or incorporated into the wall during construction. The box should be placed at least 2m above ground, out of the reach of cats, with a clear access route to the entrance holes.

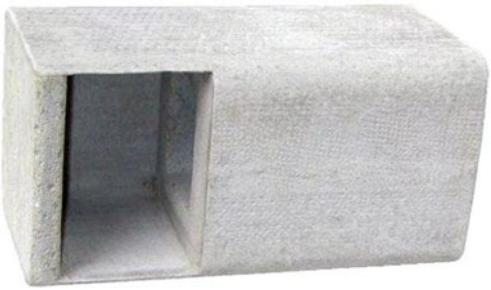


Figure 3: 1HE Schwegler Brick Box (NHBS 2018)

Schwegler 1B nest boxes should also be installed on the building and within the roof garden to further encourage nesting birds. These recommendations will be the subject of discussions with GOSH to understand risks associated with their implementation due to hospital biohazard requirements and risk associated with immunocompromised patients.

6.2.2 Bats

Once full access to the utilities vaults (Building 2) and the plant room can be arranged and asbestos pipe lagging has been made safe, further internal inspection of the vaults should be carried out to ascertain whether roosting bats are using the feature. Further recommendations and actions may be proposed after the results from the recommended surveys are carried out.

6.3 Other Enhancement Opportunities

The site did not have suitable habitats to support notable or protected invertebrate species, however GIGL recorded protected Lepidoptera species within the 2km buffer of the site. The development is an opportunity to ecologically enhance the available habitat for Lepidoptera species and other invertebrates that have been recorded historically in the wider area. This will help to achieve a biodiversity net gain as required according to Camden Local Plan 2017 Policy A3 which states that developments will be assessed 'against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed'. This enhancement can be possible through the use of green roofs/walls and native planting which is recommended in the Camden Local Plan Policy A3, section 6.68, and in line with Camden BAP Action Plan No.2.2 and Camden Development Policy 22. The green roofs should be planted with vegetative species such as Common Dog-violet (*Viola riviniana*), nettles (*lamium spp*). plantains (*Plantago spp*.) and ragworts (*Jacobaea spp*.) which will benefit protected Lepidoptera species in the wider area.

In line with the Camden Local Plan the development should 'incorporate additional trees and vegetation wherever possible'. In addition to this, a development should protect existing trees and vegetation whilst replacing any that are lost.

The installation of insect hotels on buildings is recommended to increase the site suitability for invertebrates. It is recommended that four insect hotels are placed on the new building at least 2m from ground level. These recommendations will be the subject of discussions with GOSH to understand risks associated with their implementation due to hospital biohazard requirements and risk associated with immunocompromised patients.

Further bat enhancement on the site will depend on the results of the further surveys.

7 Conclusions

The field survey of the site at GOSH Children's Cancer Centre identified a low number of habitats which did not provide a high level of ecological value or potential. The development could have an impact on bats as the utility vaults have been identified as having low roosting bat potential and require further surveys to establish presence or absence. In addition the plant room on the roof of the Frontage Building (Building 1) could not be accessed during the Preliminary Roost Assessment and should be surveyed once access is gained to determine its suitability for bats. Further surveys may be required following this assessment.

Nesting bird checks will be required prior to any developmental work if it is due to take place in the bird nesting season.

Enhancement and compensation measures are provided to be incorporated into the design of the development which will keeping in line with policy A3 'Biodiversity' and 'Trees and Vegetation' from the Camden Local Plan 2017 which will 'enhance sites of nature conservation and biodiversity'. The enhancement recommendations are also in line with both the Camden and London BAP's. Providing all the recommendations made in this report are followed accordingly, the proposed development will be; unlikely to have an impact on protected/notable habitats and species, likely improve biodiversity within the site through enhancements, and, likely to comply with the relevant legal and planning policy with regards to the protection of wildlife and habitats. These mitigation and enhancements will be the subject of discussions with GOSH to understand risks associated with their implementation due to hospital biohazard requirements and risk associated with immunocompromised patients.

8 References

ADAS (2020) Great Ormond Street Hospital Arboricultural Report

Butterfly conservation (2019) https://butterfly-conservation.org/

Camden Local Plan (2017) Strategic Planning and Implementation, planningpolicy@camden.gov.uk

Camden BAP (2018) Camden Biodiversity Action Plan

Chartered Institute of Ecology and Environmental Management (2017). *Guidelines for Ecological Preliminary Ecological Appraisal. Technical Guidance Series.* www.cieem.net

Chartered Institute of Ecology and Environmental Management (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Technical Guidance Series www.cieem.net

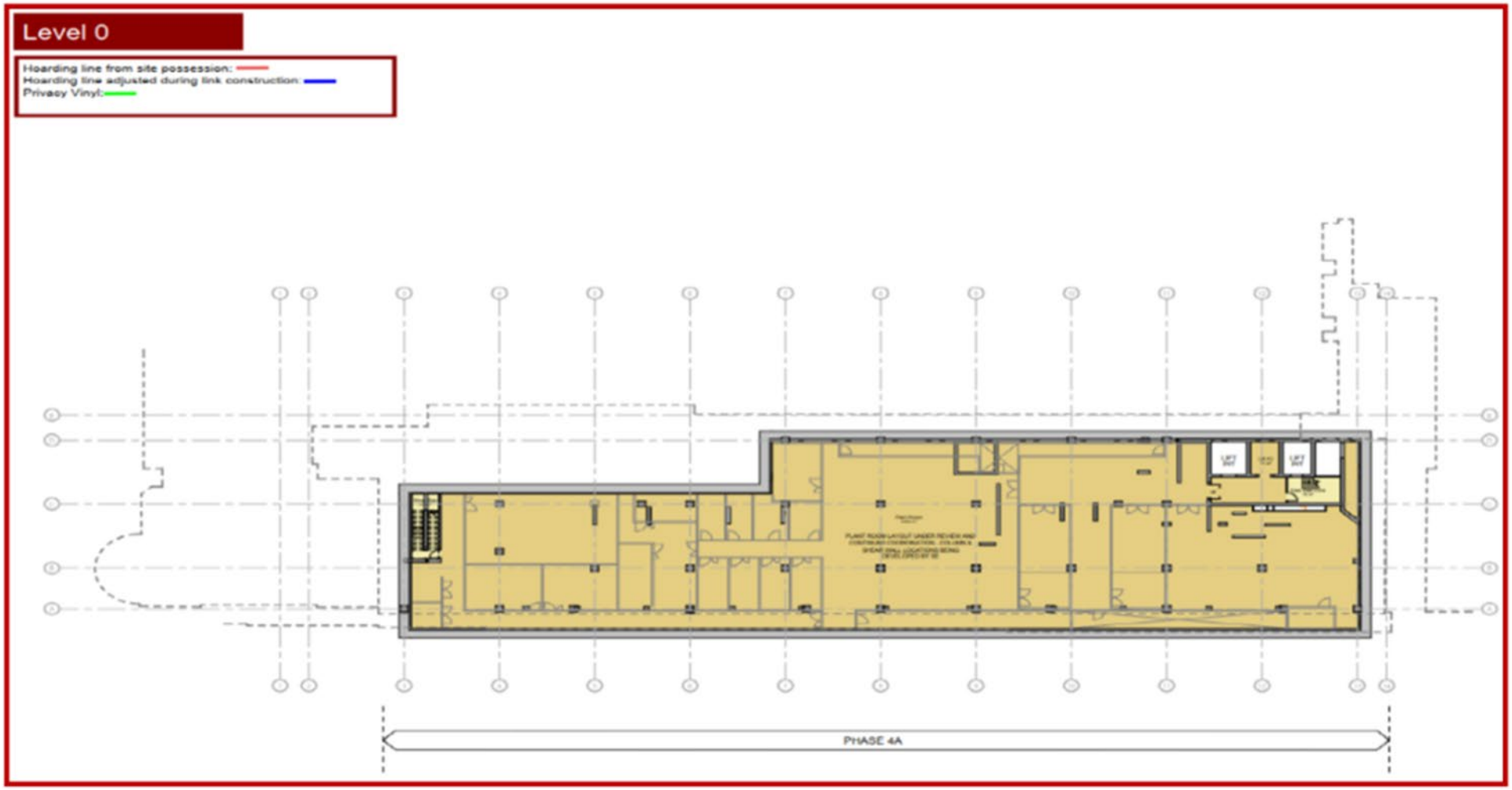
JNCC (2010). *Handbook for Phase 1 Habitat Survey. A technique for environmental audit (reprint).* Joint Nature Conservation Committee, Peterborough.

London BAP (2007) London Biodiversity Action Plan

Stace. C. (2019). *New British Flora of the British Isles.* 4th Edition. Cambridge University Press.

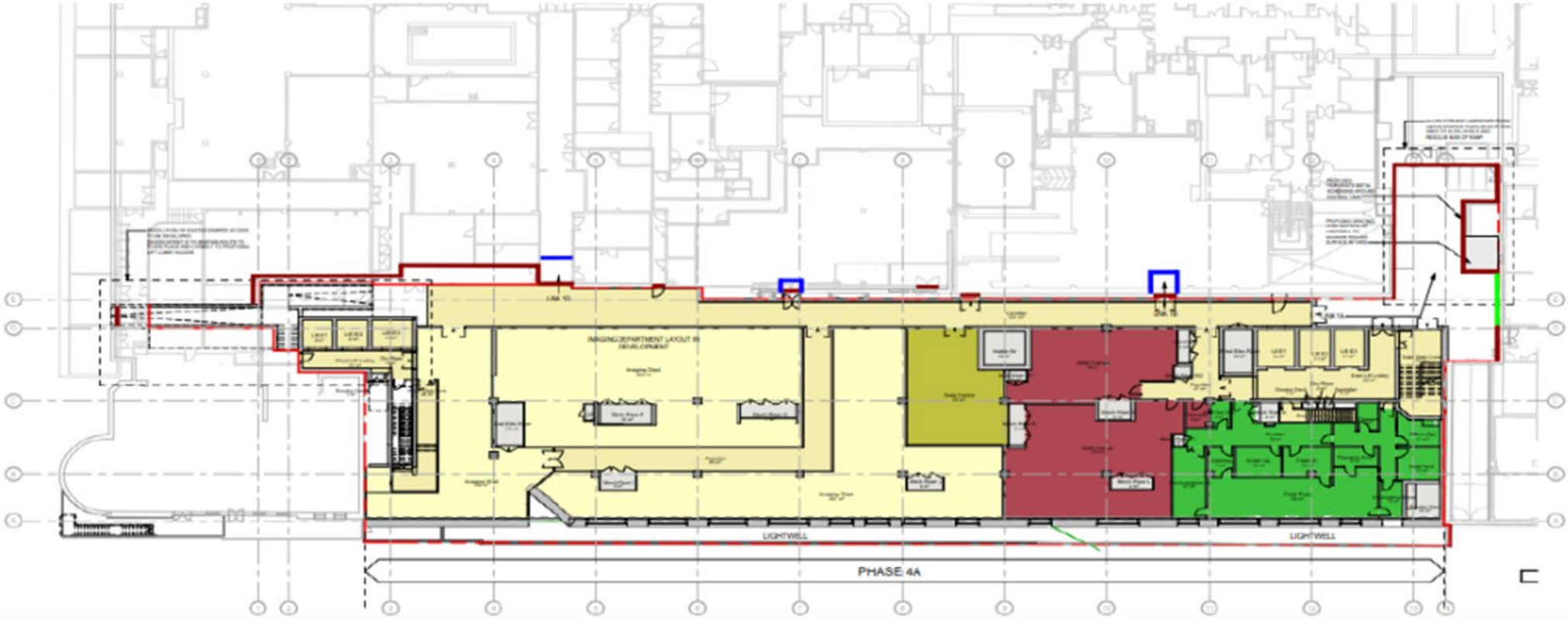
Appendix 1: Proposed Plans

See following page.


Level 0
Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:
PHASE 4A

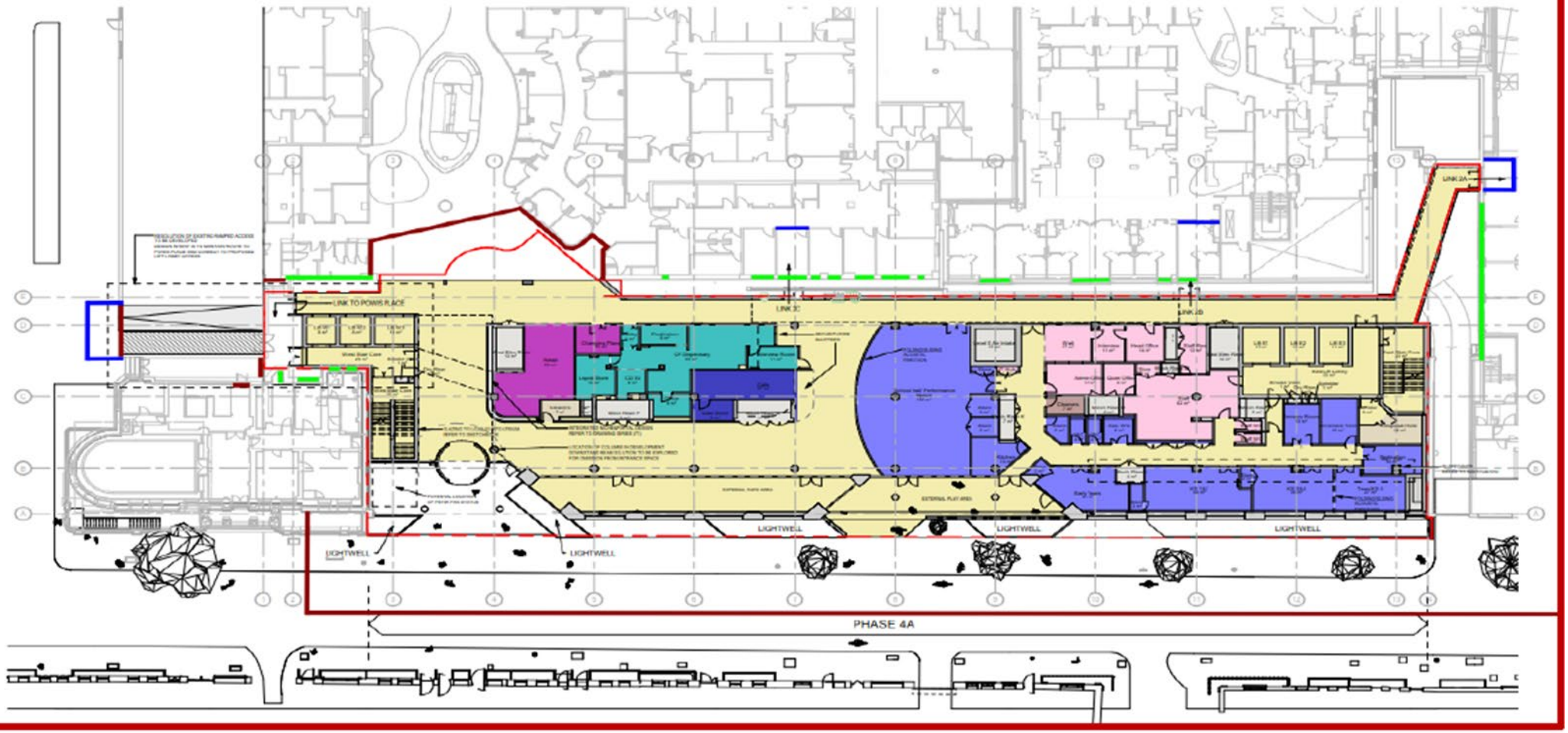
Level 1

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:



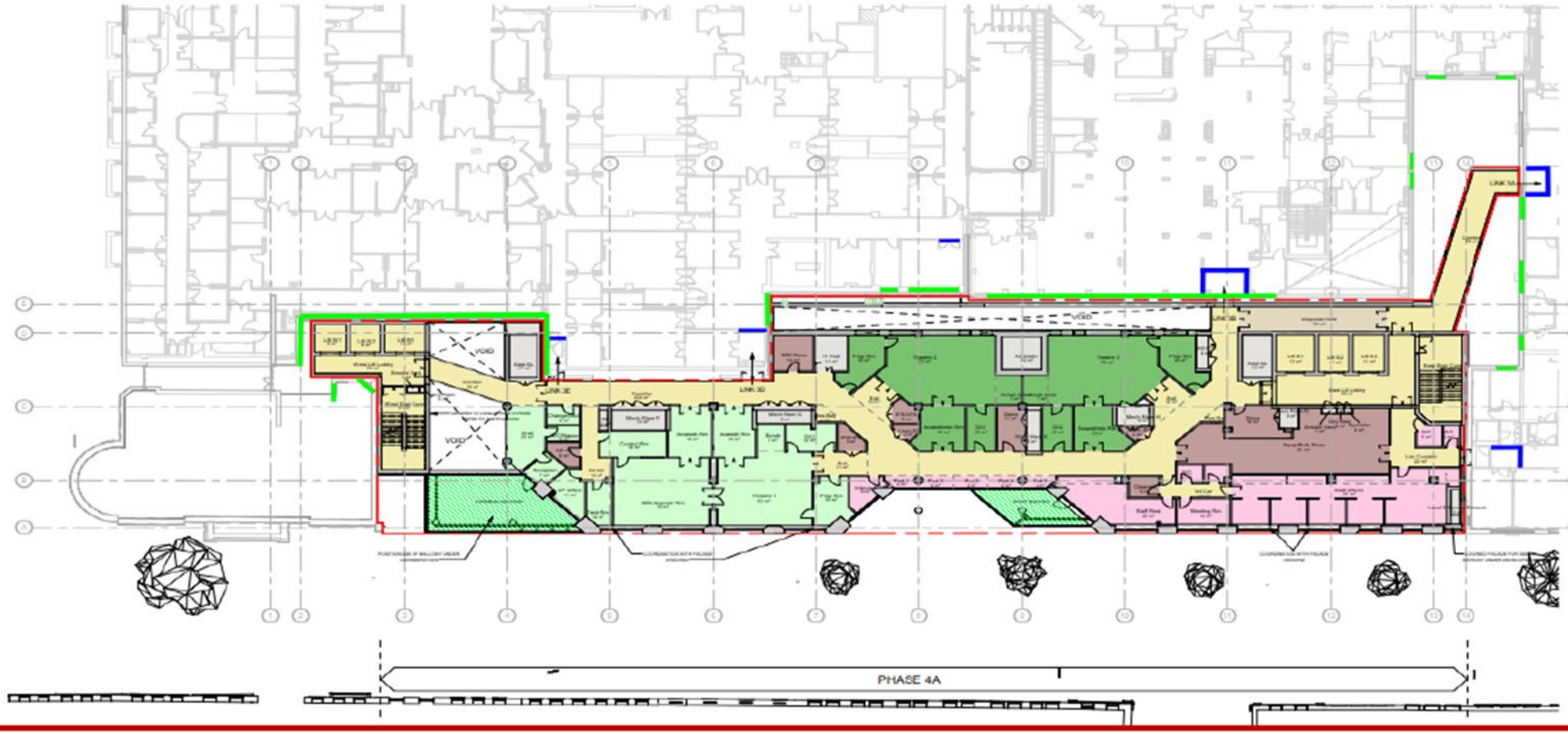
Level 2

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:



Level 3

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:



Level 4

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:

Level 5

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:

Level 6

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:

Level 7

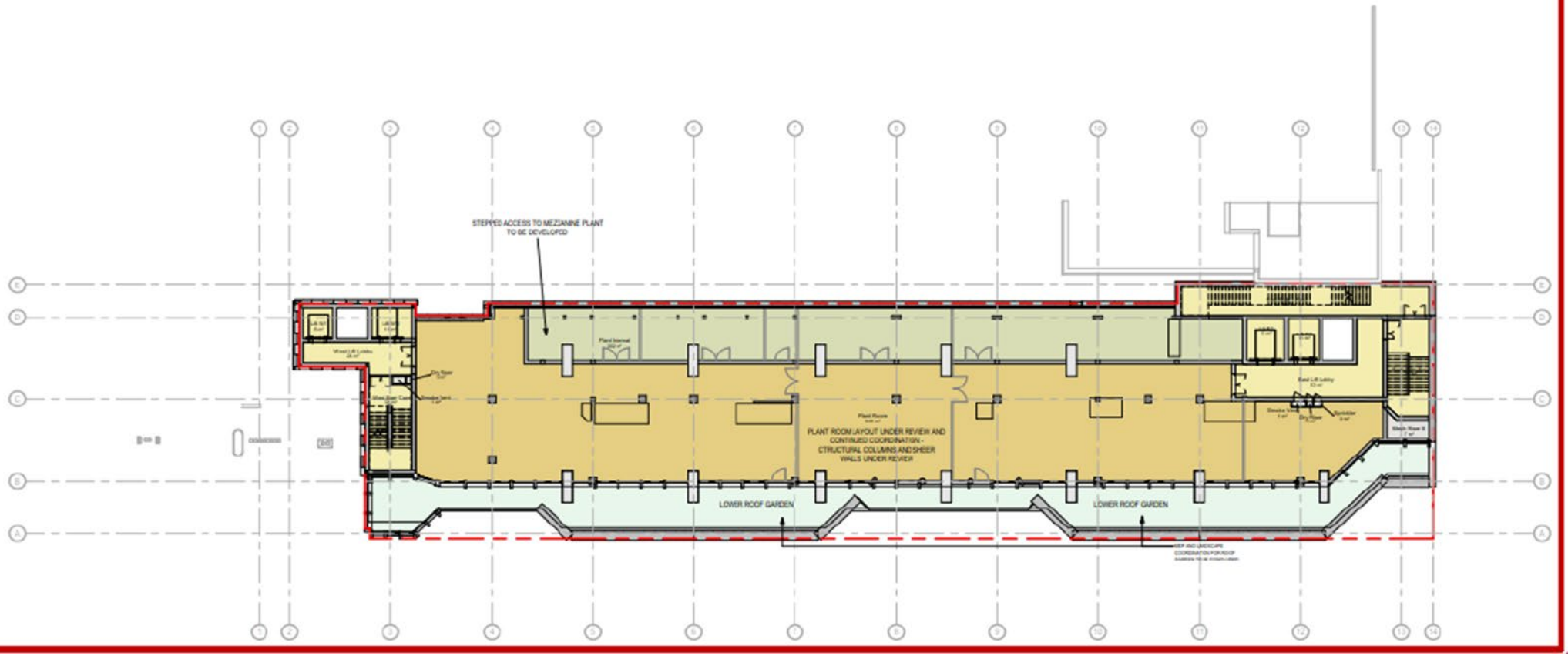
Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:

Level 8

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:

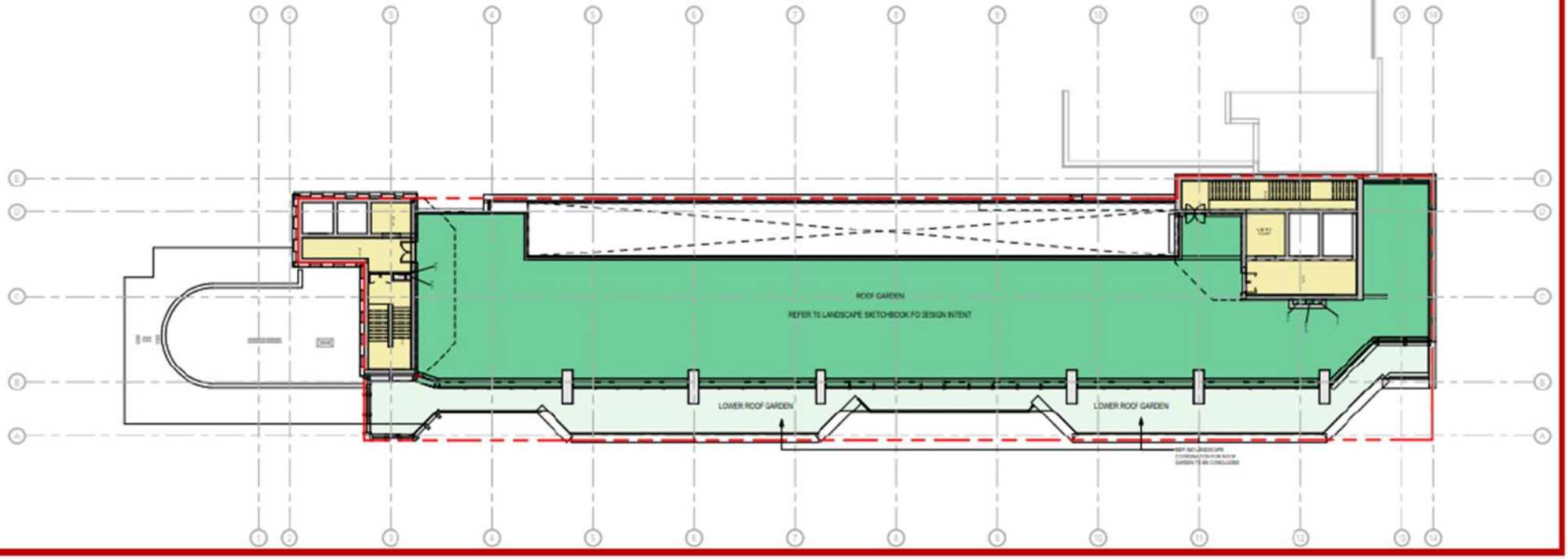
Level 9

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:



Level 10

Hoarding line from site possession:
Hoarding line adjusted during link construction:
Privacy Vinyl:

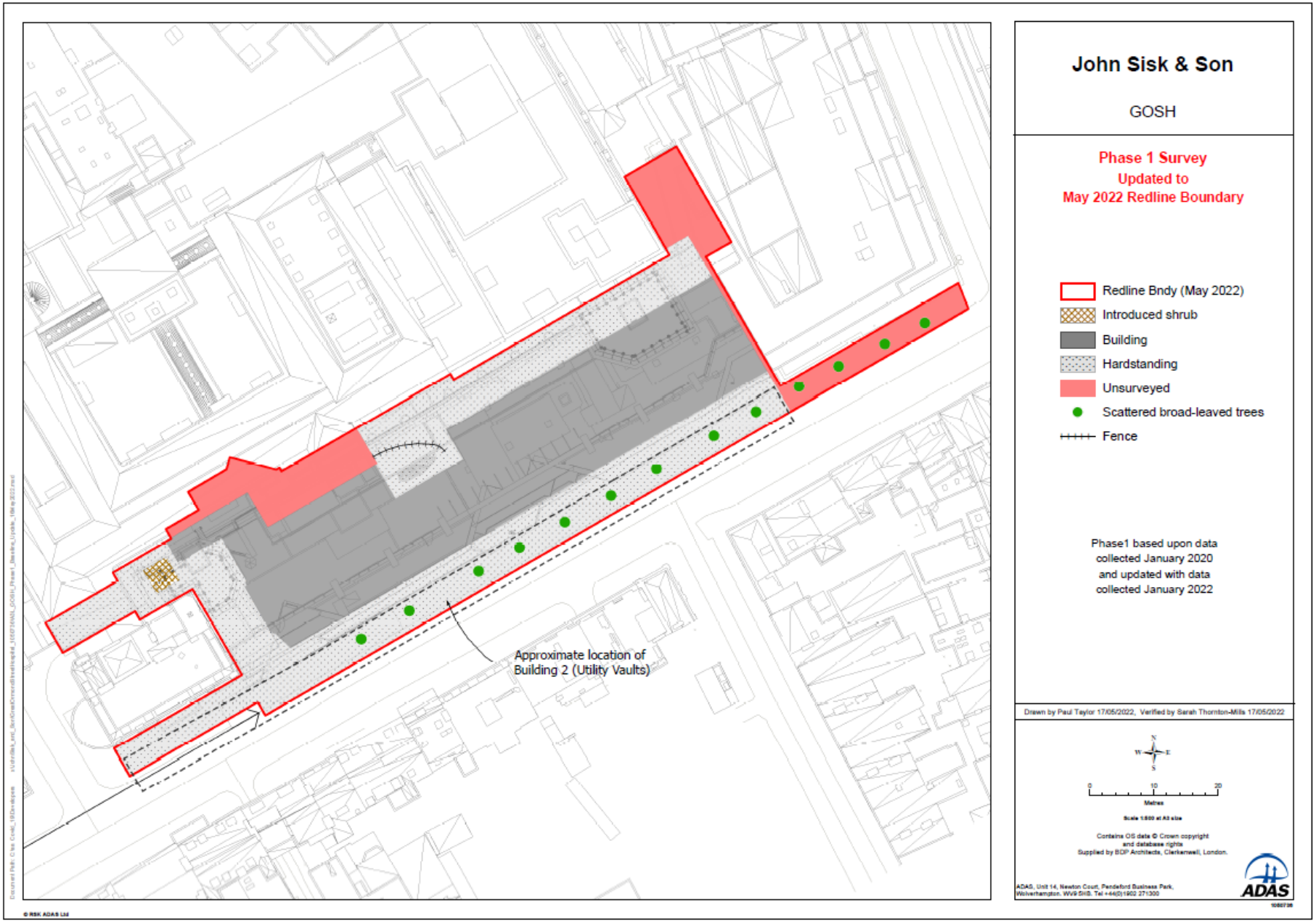


Appendix 2: Frame of Reference for Geographical Context

Geographical context	Examples
International and European	Ramsar Sites, Special Protection Areas, Biosphere Reserves, Special Areas of Conservation. Sites supporting populations of internationally important species. Any regularly occurring population of an internationally important species, which is threatened or rare in the UK. i.e. it is a UK Red Data Book species or listed as occurring in 15 or fewer 10km squares in the UK (categories 1 and 2 in the UK BAP) or of uncertain conservation status or of global conservation concern in the UK BAP. A regularly occurring, nationally significant population/number of any internationally important species.
National	SSSIs or non-designated Sites meeting SSSI selection criteria, NNRs, Marine Nature Reserves, NCR Grade 1 Sites. Sites containing viable areas of key habitats identified in the UK Biodiversity Action Plan. Any regularly occurring population of a nationally important species which is threatened or rare in the region or county (see local BAP). A regularly occurring, regionally or county significant population/number of any nationally important species.
Regional	Sites containing viable areas of threatened habitats listed in a Regional BAP (or some Natural Areas), comfortably exceeding SINC criteria, but not exceeding SSSI criteria. Any regularly occurring, locally significant population of a species listed as being nationally scarce which occurs in 16-100 10km squares in the UK or in a Regional BAP or relevant Natural Area on account of its regional rarity or localisation; A regularly occurring, locally significant number of a regionally important species.
County / Metropolitan	Sites meeting the criteria for county or metropolitan designation (SINC, CWS, etc.). Ancient semi-natural woodland, LNRs or viable areas of key habitat types listed in county BAPs/Natural Areas. Any regularly occurring, locally significant population of a species which is listed in a County/Metropolitan "red data book" or BAP on account of its regional rarity or localisation; A regularly occurring, locally significant number of a County/Metropolitan important species.
Local	Undesignated Sites or features considered to appreciably enrich the habitat resource in the District or Borough or within a zone of influence. A population of a species that is listed in a District/Borough BAP because of its rarity in the locality or in the relevant Natural Area profile because of its regional rarity or localisation; A regularly occurring, locally significant number of a District / Borough important species during a critical phase of its life cycle.

Appendix 3: Phase 1 Habitat Survey Map

See following page.


John Sisk & Son
GOSH
Phase 1 Survey
Updated to
May 2022 Redline Boundary
Redline Bndy (May 2022)
Introduced shrub
Building
Hardstanding
Unsurveyed
Scattered broad-leaved trees
Fence
Phase1 based upon data
collected January 2020
and updated with data
collected January 2022
Approximate location of
Building 2 (Utility Vaults)
Drawn by Paul Taylor 17/05/2022, Verified by Sarah Thornton-Mills 17/05/2022
Metres
Scale 1:500 at A3 size
Contains OS data © Crown copyright
and database rights
Supplied by BDP Architects, Clerkenwell, London.
ADAS, Unit 14, Newton Court, Pendeford Business Park,
Wolverhampton, WV9 5HB. Tel +44(0)1902 271300
ADAS
© RSK ADAS Ltd

Appendix 4: PRA Photographs

	
PRA Note 1: Hole in wall leading to utilities vault.	PRA Note 2: View of utilities vault through open door.

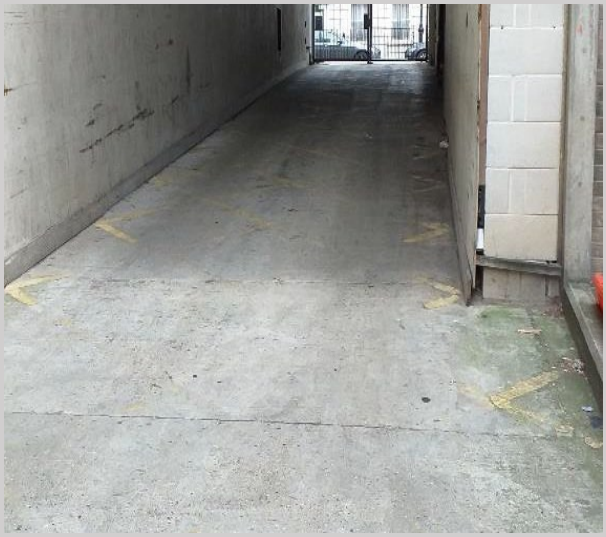
Appendix 5: Photographs

Photograph 1: Scattered trees

Photograph 2: Introduced shrub.

Photograph 3: Fence with planted ivy climbing it.

Photograph 4: Building 1 (Frontage).

	
Photograph 5: Roof of Building 1 (Frontage).	Photograph 6: Bare ground