CNWL Wembley Park

Environmental Impact Assessment Screening Report

November 2022

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Environmental Impact Assessment Screening Report

Prepared on behalf of Dollis Hill Wembley LLP

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APPENDICES

1 INTRODUCTION

1.1 This report has been prepared by Barton Willmore, now Stantec[1] on behalf of Dollis Hill Wembley LLP ('the Applicant'). This report accompanies a request to the London Borough of Brent (LBB) to adopt a screening opinion to determine whether proposed development on 0.5 hectares (ha) of land at Wembley Park ('the site'), constitutes EIA development. The proposals are for the construction of a residential led development, comprising a main tower and connected mid-rise building, containing up to 310 units ('the proposed development').

1.2 This report reflects the requirements of the *Town and Country Planning (Environmental Impact Assessment) Regulations 2017, as amended*[2] (the "EIA Regulations") and in accordance with Regulation 6 of the EIA Regulations, this report contains:

- A plan sufficient to identify the land;
- a description of the development, including in particular:
  (i) a description of the physical characteristics of the development and, where relevant, of demolition works;
  (ii) a description of the location of the development, with particular regard to the environmental sensitivity of geographical areas likely to be affected;
- a description of the aspects of the environment likely to be significantly affected by the development;
- to the extent the information is available, a description of any likely significant effects of the proposed development on the environment resulting from:
  (i) the expected residues and emissions and the production of waste, where relevant; and
  (ii) the use of natural resources, in particular soil, land, water and biodiversity; and
- such other information or representations as the person making the request may wish to provide or make, including any features of the proposed development or any measures envisaged to avoid or prevent what might otherwise have been significant adverse effects on the environment.

Requirement for EIA

1.3 In order to determine whether the development is 'EIA development', regard must be had for the EIA Regulations and supporting Planning Practice Guidance (PPG)[3].

[1] Institute of Environmental Management and Assessment (IEMA) qualified assessors and Environmental Impact Assessment (EIA) Quality Mark registrants
[2] SI 2017/571, as amended by SI 2018/695 and SI 2020/505
[3] https://www.gov.uk/guidance/environmental-impact-assessment

1.4 EIA development is defined by the EIA Regulations as development:

> *"likely to have significant effects on the environment by virtue of factors such as its nature, size or location".*

1.5 EIA development falls into two Schedules of the EIA Regulations. EIA is mandatory for developments listed within Schedule 1. Schedule 2 developments require EIA if they would lead to likely significant effects on the environment.

1.6 In deciding whether a Schedule 2 development is EIA development, Regulation 5(4) states:

> *"Where a relevant planning authority … has to decide under these Regulations whether Schedule 2 development is EIA development, the relevant planning authority … must take into account in making that decision-*
> *(a) Any information provided by the applicant;*
> *(b) The results of any relevant EU environmental assessment which are reasonably available to relevant planning authority…; and*
> *(c) such of the selection criteria set out in Schedule 3 as are relevant to the development."*

1.7 In order to allow LBB to determine the need for EIA, this report provides a description of the site and the development, a review of the EIA Screening Criteria based on the EIA Regulations and the PPG, a completed EIA Screening Checklist, and a site location plan at Appendix A.

2 SITE AND DEVELOPMENT

Site Context

2.1 The site (see Appendix A) is located within the ward of Wembley Park, in the administrative area of LBB. The site is triangular in shape and is located in a densely built-up urban area. It is bound by the A089 Wembley Park Drive to the north-west, Olympic Way to the east and the Stadium Retail Park to the south. Wembley Park Underground Station, which is on the Jubilee and Metropolitan London Underground lines, is located approximately 100m to the north of the site, and Wembley Stadium is located approximately 500m south of the site.

2.2 Land use immediately surrounding the site is largely commercial in nature. Stadium Retail Park to the south of the site contains various commercial uses including a Lidl, Currys, JD Sports and McDonalds's fast food restaurant as well as a performing arts Theatre (Troubadour Wembley Park Theatre). An office building is located to the east of the site, beyond Olympic Way, as well as Hotel Novotel London Wembley. There are also a number of commercial uses to the west of the site beyond Wembley Park Drive, including Premier Inn London Wembley Park as well as a number of fast food take aways and small commercial retail units.

2.3 Michaela Community School and Sixth Form College is located approximately 50m to the north east of the site.

2.4 The wider area surrounding the site is mixed use. To the south and east is large scale redevelopment associated with Wembley Park. The wider area to the north and west of the site is residential in nature.

2.5 The A4089 Wembley Park Drive connects to the A4088 and the A404, both of which link up with the A406 Northern Circular Road. The nearest bus stop (Empire Way Stop J) is located 60m west of the site and is served by six bus routes (83, 182, 206, 223, 297 and N83).

Planning Context

2.6 The site is located within the Growth Area identified by the Wembley Area Action Plan (WAAP). Specifically, it is located in the Stadium Comprehensive Development Area, one of five local character areas. In May 2016 LBB approved the Wembley Park Masterplan, which seeks to deliver up to 5,000 homes together with commercial uses in and around Wembley.

Site Description

2.7 The site is under 0.5 ha in area and is currently used as a campus for the College of North West London.

2.8 The majority of the site is hand standing, comprising the current nine storey College building and car parking area. The Wealdstone Brook runs east-west through the northern portion of the site, flowing under Wembley Park Drive and Olympic Way.

2.9 As well as a section of the Wealdstone Brook, the north of the site includes introduced shrubs, amenity grassland, defunct species poor hedgerow and scattered trees. Wealdstone Brook is a canalised channel that runs through the north of the site and acts as a wildlife corridor.

2.10 Vehicular access to the site is from the west via the A4089 Wembley Park Drive. There is also pedestrian access from the east via Olympic Way.

Environmental Baseline Conditions

Landscape and Visual

2.11 The site is not located within an Area of Outstanding Natural Beauty (AONB), National Park or Area of High Landscape Value (AHLV).

Biodiversity

2.12 There are no international ecological designations on or adjacent to the site, (Special Areas of Conservation (SAC), Special Protection Areas (SPA) and Ramsar Sites). There are no national ecological designated sites on or adjacent to the site (Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNR). Additionally, the site does not contain locally designated ecological areas (Local Nature Reserves) or ecological designations defined through the Local Plan Proposals Map.

2.13 The nearest ecological designation to the site is Freyent Country Local Nature Reserve (LNR) located approximately 1km north of the site. In addition, Brent Reservoir/ Welsh Harp is located approximately 1.7km north-east of the site and is both a LNR and SSSI.

2.14 An extended Phase 1 Habitat Survey has been undertaken for the site which identifies that habitats on-site have potential to support roosting bats, foraging bats and nesting birds.

However, the site is not considered suitable for Badger, Reptiles, Great Crested Newt, Riparian Mammals or Hedgehog.

Heritage and Archaeology

2.15 The site is not located in or within close proximity to a World Heritage site, Registered Battlefield or Registered Park and Garden. The nearest Scheduled Monuments are an Iron Age settlement and a Medieval moated site, located approximately 3.3km south-west of the site. The nearest Registered Parks and Gardens are Roundwood Park and the Willesden Jewish Cemetery located approximately 3km east of the site and Harrow Park located approximately 3.6km west of the site. There are no Listed Buildings within the site but there are five Grade II Listed Buildings within 1km of the site. The Listed Buildings along with their location and distance from the site are listed below:

1. Three K6 telephone kiosks (REF:1262133), located approximately 350m south of the site
2. Wembley Arena (REF:1078877), located approximately 430m south of the site
3. Brent Town Hall (REF: 1262141), located approximately 590m north-east of the site
4. Wembley Hill Lodge (REF: 1359001), located approximately 730m south-west of the site
5. Church of the Ascension (REF: 1426060), located approximately 1km north-west of the site

2.16 The site is not located within a conservation area, as defined by LBB. The nearest conservation areas are Barn Hill, located approximately 400m north of the site and Wembley High Street located approximately 600m south of the site.

2.17 The site is not located in an Archaeological Priority Area.

Air Quality

2.18 The site is located within the Brent Air Quality Management Area (AQMA), declared in December 2006 for exceedances of Nitrogen dioxide (NO2) (Annual Mean) and Particulate Matter PM10 (24-Hour Mean)[4]. The AQMA covers the southern two-thirds of the borough.

Noise and Vibration

2.19 Given that the A4089 Wembley Park Drive is located adjacent to the northwest of the site, road traffic is the dominant noise source affecting the site. There would also be noise around

[4] https://uk-air.defra.gov.uk/aqma/details?aqma_ref=120

the site, particularly on Olympic Way, associated with visitors to Wembley Stadium on event days.

Water Resources and Flood Risk

2.20 As stated above, the Wealdstone Brook runs east-west through the northern portion of the site. The site is predominantly in Flood Zone 2[5] meaning there is a medium probability of flooding. The area along the Wealdstone Brook is located in Flood Zone 3 which means there is high probability of flooding. The site is not located within a groundwater Source Protection Zone (SPZ).

Unexploded Ordnance

2.21 An Unexploded Ordnance Assessment has been undertaken which has confirmed that there is a low risk from German and Allied unexploded ordnance at the site.

The Proposed Development

2.22 The proposed development will comprise the demolition of the existing college building and the development of up to 310 residential units, as part of a new gateway tower to the Wembley Masterplan on Olympic Way.

2.23 The proposed development with include up to 500sqm of commercial and/or community uses at ground floor level.

2.24 The formal description of development is:

> *'Crescent House is proposed to be a residential led development on a site adjoining Wembley Park Drive and Olympic Way, in Wembley, LB Brent. The proposals include a taller tower of 30 storeys with a connected mid-rise building of 15 storeys. The projected residential quantum of the development is 302 units, with ancillary commercial units at ground floor and a basement containing cycle storage and plant areas. The site is intersected east to west by the Wealdstone Brook, the development is proposed in the southern part of the site, with the area to the north of the brook proposed as communal amenity space for residents, with associated landscape improvements.'*

2.25 The proposed development will be up to 30 storeys plus plant and other roof structures in height (138.3m Above Ordnance Datum (AOD)).

2.26 Vehicular access to the site will be from the west, via the A4089 Wembley Park Drive. There will also be a separate pedestrian access point to the east of the site, via Olympic Way.

Mitigation

2.27 In accordance with Regulation 6, (2), e) of the EIA Regulations, a number of mitigation measures have been committed to at screening stage as part of the proposed development. This includes adherence to best practice measures during the construction phase, such as through a Construction Environmental Management Plan (CEMP), which will be secured by a planning condition. This will include:

- A table showing the objectives, activities (mitigation/optimisation measures), and responsibilities for the implementation of those activities;
- The broad plan of the work programme including working hours and delivery times;
- Details of prohibited or restricted operations (location, hours etc.);
- Institutional arrangements for its implementation and for environmental monitoring: responsibilities, role of the environmental authorities, participation of stakeholders;
- Contact during normal working hours and emergency details outside working hours;
- Provision for reporting, public liaison, and prior notification of particular construction related activities;
- The mechanism for the public to register complaints and the procedures for responding to such complaints; and
- The details of proposed routes for Heavy Good Vehicles (HGVs) travelling to and from the site.

2.28 A Construction Traffic Management Plan (CTMP) will be implemented during the construction works. All management of construction traffic and access will be carried out in accordance with the CTMP, as set out below:

- Planning and managing both vehicle and pedestrian routes;
- The elimination of reversing, where possible;
- Safe driving and working practices;
- Protection to the public;
- Adequate visibility splays and sight lines;
- Provision of signs and barriers; and
- Adequate parking for off-loading storage areas.

2.29 Trees to be retained in proximity to areas of development activity, including areas for new surfacing, services, work site compounds and storage will be protected to ensure they are not damaged. This will be achieved with the use of temporary tree protection fencing in accordance with BS 5837: 2012 'Trees in Relation to Design, Demolition and Construction'[5], to prevent access within the Root Protection Zone (RPZ) or canopy spread of trees. Where access is unavoidable, alternative protection arrangements such as ground protection (sufficient to protect the structure of the soil from compaction), and /or access facilitation pruning (to ensure a reasonable clearance for operations is provided) will be required. The majority of the existing trees within the north of the site will also be retained as part of the proposed development.

2.30 A Preliminary Ecological Appraisal (PEA) and External Bat Scoping Survey has been undertaken for the site by Geosphere Environmental (Ref: 5935,EC,PEA,RH,RF,KL,04.11.21,V1) (refer to Appendix B). As detailed in the report, the Wealdstone Brook would be protected from impacts of the construction works, such as surface water runoff and other pollution for the duration of the works. In addition, avoidance measures would be implemented in regards to roosting bats, foraging bats and birds as follows:

- Roosting bats: the bridges and trees with roost potential would be retained and protected with a sensitive lighting scheme and appropriate construction buffer to prevent noise and vibration impacts from construction, specific details to be included in the aforementioned CEMP.
- Foraging bats: a sensitive lighting scheme would be implemented during and post construction.
- Birds: Timing of vegetation clearance to avoid the bird breeding season (March-August inclusive).

2.6 Opportunities to mitigate ecological effects and enhance biodiversity also include planting of native species, incorporation of bat boxes and bird boxes, log piles for invertebrates.

2.1 Noise limits for plant noise emissions have been calculated in the Noise Impact Report which has been prepared, using BS4142 methodology and will be implemented as part of the proposed development. Additionally, mitigation measures to limit noise breakout from the ground floor commercial units in the proposed development include:

- Designing high acoustic performance separating walls and floors between commercial units;

[5] BS 5837: 'Trees in Relation to Design, Demolition and Construction' April 2012.

- Ensuring that the external facades of the commercial units are designed to minimise noise breakout from activities within the commercial units;
- Imposing noise limits on commercial tenants and preventing noisy commercial uses from occupying the units; and
- Imposing operational restrictions on commercial units, e.g. noise limits, limiting operating hours and delivery timings.

2.2 All personnel working on the site would be briefed on the basic identification of UXO and what to do in the event of encountering a suspect item. Further mitigation measures may include a site-specific plan for the management of UXO risk.

3 SCREENING ASSESSMENT

Determining the Screening Approach

3.1 In determining whether a development constitutes EIA development, consideration should be had to the following:

- Is the development listed in Schedule 1;
- If not, is it listed in Schedule 2;
- Is it located within a sensitive area;
- Does the development meet any of the relevant thresholds and criteria set out in Schedule 2; and/or
- Would it lead to likely significant effects on the environment?

3.2 These points are explored further in this section with reference to the EIA Regulations and supporting PPG.

Schedule 1 Projects

3.3 EIA is mandatory for projects listed in Schedule 1 of the EIA Regulations. Schedule 1 developments are large scale projects for which significant effects would be expected and comprise developments such as new airports and power stations. The development is not of a type listed in Schedule 1.

Schedule 2 Projects

3.4 EIA is discretionary for projects listed in Schedule 2. If the development is of a type listed in Schedule 2 then it may be classified as EIA development depending on the location of the development (i.e. if it is within a sensitive area) and/or whether it meets any of the relevant thresholds or criteria in Column 2.

3.5 Sensitive Areas are defined in the EIA Regulations as:

- Sites of Special Scientific Interest and European Sites;
- National Parks, the Broads, and Areas of Outstanding Natural Beauty; and
- World Heritage Sites and Scheduled Monuments.

3.6 In certain cases, local designations which are not included in the definition of sensitive areas,

but which are nonetheless environmentally sensitive, may also be relevant in determining whether an assessment is required. Furthermore, in considering the sensitivity of a particular location, regard should also be had to whether any national or internationally agreed environmental standards (e.g. air quality) are already being approached or exceeded.

3.7 As stated within the baseline conditions section of this EIA Screening, the development does not fall within a sensitive area as stated above. As such, the EIA Screening Thresholds should be considered to determine whether the development falls within the Schedule 2 criteria.

3.8 The development falls within category 10 of Schedule 2, 'Infrastructure Projects', sub-section (b) 'Urban Development Projects'. The thresholds for this type of development as set out in Schedule 2 relate to developments that "*include more than 1 hectare of urban development which is not dwellinghouse development, include more than 150 dwellings, or the overall area of the development exceeds 5 hectares*". The area of development is less than 0.5 ha which falls below the area threshold, however at up to 310 dwellings the proposals exceed the dwelling threshold. Accordingly, this screening assessment has been prepared to determine whether the development would be likely to result in significant environmental effects. To achieve this, Schedule 3 of the EIA Regulations and PPG need to be considered. Information on these is set out below.

3.9 The PPG[6] confirms that:

> *"Only a very small proportion of Schedule 2 development will require an Environmental Impact Assessment".*

Schedule 3

3.10 Schedule 3 of the EIA Regulations sets out selection criteria which relate to specific matters including: the characteristics of the development; the location of the development; and the characteristics of the potential impact. These factors should be taken into account as part of the screening process and are set out below:

Characteristics:

- the size and design of the whole development;
- cumulation with other existing development and/or approved development;
- the use of natural resources, in particular land, soil, water and biodiversity;
- the production of waste;
- pollution and nuisances;

- the risk of major accidents and/or disasters relevant to the development concerned, including those caused by climate change, in accordance with scientific knowledge;
- the risks to human health (for example, due to water contamination or air pollution).

Location:

- the existing and approved land use;
- the relative abundance, availability, quality and regenerative capacity of natural resources (including soil, land, water and biodiversity) in the area and its underground; and
- the absorption capacity of the natural environment.

Potential Impact:

- the magnitude and spatial extent of the impact (for example geographical area and size of the population likely to be affected);
- the nature of the impact;
- the transboundary nature of the impact;
- the intensity and complexity of the impact;
- the probability of the impact;
- the expected onset, duration, frequency and reversibility of the impact;
- the cumulation of the impact with the impact of other existing and/or approved development; and
- the possibility of effectively reducing the impact.

Consideration of Cumulative Effects

3.11 Schedule 4 of the EIA Regulations requires consideration of a proposed development cumulatively with other existing and/or approved development. Guidance on the consideration of cumulative effects in the EIA screening process is set out in the PPG, which echoes the requirements of the EIA Regulations:

> *"each application (or request for a screening opinion) should be considered on its own merits. There are occasions where other existing or approved development may be relevant in determining whether significant effects are likely as a consequence of a Proposed Development. The local planning authorities should always have regard to the possible cumulative effects arising from any existing or approved development."*

3.12 A number of permitted schemes in close proximity to the site, have been identified and are set out in **Table 3.1**.

Table 3.1: Cumulative Schemes

Scheme Name and Application Number	Description	Planning Status	Approximate distance from the site
Olympic Way and land between Fulton Road and South Way including Green Car Park, Wembley Retail Park, 1-11 Rutherford Way, 20-28 Fulton Road, Land south of Fulton Road opposite Stadium Retail Park, land opposite Wembley Hilton, Land opposite London Design Outlet. Ref: 15/5550	Hybrid planning application, accompanied by an Environmental Impact Assessment, for the redevelopment of the site including;- Full planning permission for erection of a 10-storey car park to the east of the Stadium comprising 1,816 car parking spaces of which 1,642 are for non-residential purposes, up to 82 coach parking spaces and associated infrastructure, landscaping and vehicular access. And Outline application for the demolition of existing buildings on site and the provision of up to 420,000 sqm (gross external area) of new floorspace within a series of buildings comprising: Retail/financial and professional services/food and drink (Use Class A1 to A4) up to 21,000 sqm; Commercial (Use Class B1) up to 82,000 sqm; Hotel (Use Class C1): up to 25,000 sqm; Residential (Use Class C3): up to 350,000 sqm (up to 4,000 homes) plus up to 20,000 sqm of floorspace for internal plant, refuse, cycle stores, residential lobbies, circulation and other residential ancillary space; Education, healthcare and community facilities (Use Class D1): up to 15,000 sqm; Assembly and leisure (Use Class D2): 23,000 sqm; Student accommodation (Sui Generis): Up to 90,000 sqm. And associated open space (including a new public park) and landscaping; car and coach parking (including up to 55,000 sqm of residential parking and 80,000 sqm non-residential parking) and cycle storage; pedestrian, cycle and vehicular accesses; associated highway works; and associated infrastructure including water attenuation tanks, an energy centre and the diversion of any utilities and services to accommodate the development. Subject to a Deed of Agreement dated 23 December 2016 under Section 106 of the Town and Country Planning Act 1990, as amended.	Granted 23/12/16	Immediately south of site
Land to the South of Fulton Road, east of Harbutt Road and north of Humphry Repton Lane (Plot NW09/10), Wembley Ref: 18/4422	Reserved matters application in relation to hybrid planning permission 15/5550 (as amended by planning permissions 17/0328 and 18/2214) for the access, appearance, landscaping, layout and scale for Plot NW09/10 comprising the construction of three buildings, ranging from 7 to 21 storeys in height, providing 396 residential units (within the private rented and discount market rented tenures) with private communal residential landscaped gardens, car parking spaces for residential use; commercial space for either Class A1 or A2 (Retail), A3 (Café and Restaurant), and/or A4 (Drinking establishments); a Health Centre (Use Class D1) as well as	Granted 19/02/19	Immediately south of site

Scheme Name and Application Number	Description	Planning Status	Approximate distance from the site
	associated plant, cycle storage, refuse provision, other residential ancillary space and associated infrastructure including a new estate road connecting to Fulton Road. This application has been submitted pursuant to conditions 1 (Layout, Scale, Appearance, Access, and Landscaping); 19 (d) Cycle Storage; 19 (e) Motor Cycle and Car Park Provision; 19 (f): Details of Electric Vehicle Charging Points; 19 (h): Wind; 19 (k) Internal layout of buildings; 19(l) Access; 19(m) Daylight; 19(n) Private external space; 29 Playspace; 30 Wheelchair Accessible Accommodation; 38 Air Quality; 48 GLA Standards; 49 Phasing Plan. (see 18/2214 for full description of Wembley Park Masterplan development).		
Land to the east of Rutherford Way and the north of Engineers Way (Plot NE03 and Phase 1A of the Northern Park), Wembley Ref: 21/2424	Reserved matters application in relation to hybrid planning permission 15/5550 (as amended by planning permissions 17/0328, 18/2214 and 20/2844) for the access, appearance, landscaping, layout and scale for Plot NE03 comprising the construction of two buildings, ranging from 10 to 21 storeys in height, providing residential units with private communal residential landscaped gardens and terraces, and commercial floorspace as well as associated plant, cycle storage, refuse provision, other residential ancillary space and associated infrastructure and public realm including new pedestrianised estate roads, works to Rutherford Way including provision of parking and loading bays and Phase 1A of a new public park comprising the installation of hard and soft landscaping, a bandstand, a water feature, informal play space, lighting and other associated works.	Granted 22/10/21	Immediately south of site
Land to the east of Rutherford Way (Plot NE02 and Phase 1B of the Northern Park), Wembley Ref. 21/2517	Reserved matters application in relation to hybrid planning permission 15/5550 (as amended by planning permissions 17/0328, 18/2214 and 20/2844) for the access, appearance, landscaping, layout and scale for Plot NE02 comprising the construction of two buildings, ranging from 10 to 27 storeys in height, providing residential units with private communal residential landscaped gardens and terraces, and commercial floorspace as well as associated plant, cycle storage, refuse provision, other residential ancillary space and associated infrastructure and public realm including new pedestrianised estate roads, works to Rutherford Way including provision of parking and loading bays and Phase 1B of a new public park comprising the installation of hard and soft landscaping, informal play space, lighting and other associated works	Granted 22/10/21	Immediately south of site

Scheme Name and Application Number	Description	Planning Status	Approximate distance from the site
All Units, Stadium Retail Park, Wembley Park Drive & 128 Wembley Park Drive (fountain studios), HA9 Ref: 17/3059	Outline planning permission for demolition of existing buildings on site and provision of up to 85,000 sqm (Gross External Area, GEA) of new land use floorspace (across 1.679 ha) within a series of buildings, with the maximum quantum as follows: A1-A4 Retail and/or B1 Office and/or D1 (Non-Residential Institutions) and/or D2 Leisure and Assembly: up to 6,600 sqm; and C3 Residential: up to 78,400 sqm gross (approximately 995 units); No occupied residential accommodation will be at ground level or below. The development will also provide associated open space and landscaping; car parking spaces and cycle storage; pedestrian, cycle and vehicle access; associated highway works; and associated infrastructure including water attenuation tanks, and the diversion of any utilities and services to accommodate the development. Internal plant, refuse, cycle stores, residential lobbies, circulation and other ancillary space will comprise a maximum of 10,000 sqm gross external in addition to the 85,000 sqm total set out above. Subject to a Deed of Agreement dated 27 January 2021 under Section 106 of Town and Country Planning Act 1990, as amended.	Granted 01/02/2021	Immediately south of the site
Olympic Office Centre, 8 Fulton Road Wembley, HA9 0NU Ref: 17/5097	Redevelopment of the Olympic Office Site and erection of a replacement building comprising residential units, flexible retail uses, car parking at basement level, associated landscaping, plant room and amenity space, subject to a Deed of Agreement dated 14th August 2020 and a subsequent Deed of Variation dated 7th April 2021 under Section 106 of the Town and Country Planning Act 1990, as amended. There will be up to 253 new homes and the building will be part 21, part 15 and part 13 storeys.	Granted 15/04/21	190m south-east
Wembley Park Station Car Park and Train Crew Centre, Brook Avenue, Wembley,HA9 Ref: 20/0967	Comprehensive mixed-use redevelopment of the site comprising the phased demolition of the existing buildings and structures on site and the phased development comprising site preparation works, provision of five new buildings containing residential uses, replacement train crew accommodation and flexible retail floorspace, basement, private and communal amenity space, associated car parking (including the part re-provision of station car parking), cycle parking, access and servicing arrangements, refuse storage, plant and other associated works and	Granted 22/02/22	220m north-west

Scheme Name and Application Number	Description	Planning Status	Approximate distance from the site
	subject to a Deed of Agreement dated 13 October 2021 under Section 106 of the Town and Country Planning Act 1990, as amended.		
1-129 inc., Raglan Court, Empire Way, Wembley, HA9 0RE Ref: 16/3408	Erection of roof extension comprising 2 additional floors over Block A and Block B to provide a total of 72 additional self-contained flats (36 x 1bed on each Block) with associated landscaping, ancillary servicing and plant, cycle parking and associated works, subject to a Deed of Agreement dated 30 August 2018 under Section 106 of the Town and Country Planning Act 1990, as amended.	Granted 04/09/18	230m south
1,2,3 & 9 Watkin Road, Wembley, HA9 0NL Ref: 20/0587	Demolition of existing buildings and erection of a new mixed use building containing residential units and commercial floor space and a new building containing residential units; associated car and cycle parking, refuse storage, amenity space and associated landscaping subject to a Deed of Agreement dated 2 September 2021 under Section 106 of the Town and Country Planning Act 1990, as amended.	Granted 13/09/21	360m south-east
Euro House, Fulton Road, Wembley, HA9 0TF Ref: 21/2989	Demolition and redevelopment of the site to provide erection of five buildings ranging from ground plus 14 to 23 storeys; comprising residential units, retail floorspace and workspace / storage floorspace, private and communal amenity space, car parking, cycle parking, ancillary space, mechanical plant, landscaping and other associated works (phased development), subject to a deed of agreement dated 24/03/2022 under Section 106 of the Town and Country Planning Act 1990 Application subject to an environmental statement.	Granted 22/03/22	395m south-east
Ujima House, 388 High Road, Wembley, HA9 6AR Ref: 19/3092	Demolition of the existing building and erection of a new building comprising residential floorspace (Use Class C3), flexible workspace with ancillary cafe, associated hard and soft landscaping, wheelchair car parking and cycle parking. The proposed building will be up to 39.6m AOD (11 storeys) and comprise of 54 units.	Granted 05/08/19	1.1km south-west
Land, garages, alleyway rear of 416-444, High Road, Wembley, HA9 Ref: 18/3111	Erection of 2 residential blocks (17 and 19 storeys) connected at ground floor level comprising self-contained apartments, lower ground floor, flexible workspace (Use Class B1) on upper ground floor and roof top amenity, provision for car and cycle parking, refuse and associated communal spaces and hard and soft landscaping, subject to Deed of Agreement dated 01 April 2020 under Section 106 of the Town and Country Planning Act 1990. This application is accompanied by an Environmental Statement.	Granted 06/04/20	1.15km south-west

Scheme Name and Application Number	Description	Planning Status	Approximate distance from the site
5 Blackbird Hill, London, NW9 8RR Ref: 20/2096	Construction of a single building up to 6 storeys to provide residential units, and flexible commercial/community use floorspace, car and cycle parking, associated landscaping, highways and infrastructure works, and provision of pedestrian and vehicular access, subject to Deed of Agreement dated 16th June 2022 under Section 106 of Town and Country Planning Act 1990, as amended.	Granted 17/06/22	1.2km north-east
Land at junction of Cecil Avenue and High Road, Wembley, HA9 (AKA Copland Village) Ref: 19/2891	Full planning application for the construction of a mixed use building comprising new homes (Use Class C3), flexible workspace and community space, landscaped courtyards and playspace, wheelchair and cycle parking, signage and wayfinding and associated plant and infrastructure. The building will be up to nine storeys and provide 250 homes.	Granted 05/02/21	1.26km, south-west
6 and 6A Coombe Road, London, NW10 0EB Ref: 20/2473	Demolition of the existing buildings and redevelopment of the site comprising the erection of a part three, four, six and seven storey building providing flexible employment workspace on ground and part of first floor, and self-contained flats with associated car and cycle parking spaces, refuse and recycling stores, amenity space, landscaping and associated development, subject to a Deed of Agreement dated 07 April 2021 under Section 106 of the Town and Country Planning Act 1990.	Granted 08/04/21	1.4km east

National Planning Practice Guidance

3.13 Paragraphs 057[7] and 058[8] of the PPG provide guidance to help determine whether significant effects are likely. In general, the more environmentally sensitive the location, the lower the threshold will be at which significant effects are likely. **Table 3.2** below sets out the indicative criteria, thresholds and key issues to be considered in determining whether a development is likely to be EIA developed identified in the PPG.

Table 3.2: Planning Practice Guidance Indicative Screening Criteria[9]

Development type	Indicative criteria and threshold	Key issues to consider
10 (b) Urban development projects, including the construction of shopping centres and car parks, sports stadiums, leisure centres and multiplex cinemas.	Environmental Impact Assessment is unlikely to be required for the redevelopment of land unless the new development is on a significantly greater scale than the previous use, or the types of impact are of a markedly different nature or there is a high level of contamination. Sites which have not previously been intensively developed:	Physical scale of such developments, potential increase in traffic emissions and noise.

Development type	Indicative criteria and threshold	Key issues to consider
	(i) area of the scheme is more than 5 hectares; or (ii) it would provide a total of more than 10,000 m2 of new commercial floorspace; or (iii) the development would have significant urbanising effects in a previously non-urbanised area (e.g. a new development of more than 1,000 dwellings).	

Screening Assessment

3.14 This section assesses the development against the EIA screening criteria outlined above and presents the assessment of the environmental effects likely to occur as a result of the development. **Table 3.3** sets out a review of all of the above criteria and requirements and specifically addresses the proposed development at the site.

Table 3.3: Planning Practice Guidance EIA Screening Matrix

Part 1 - Question	**Part 2 - Answer to the question and explanation of reasons** (Yes/No or Not Known (?) or N/A)		**Part 3 - Is a Significant Effect Likely?** (Yes/No or Not Known (?) or N/A)	
1. Natural Resources				
1.1 Will construction, operation or decommissioning of the project involve actions which will cause physical changes in the topography of the area?	**N**	During the construction works, there will be some ground regrading from the vehicle access point on Wembley Park Drive. The proposed building levels will also be raised as part of the flood mitigation strategy to ensure there is no increase to flood risk on-site. To achieve these, a new retaining wall is proposed for the existing Wealdstone Brook as well as an increase to the existing concrete wall. There would also be some regrading in the south of the site due to the new building levels. The above changes will be implemented as part of the flood mitigation strategy to ensure there is no increase to flood risk on-site. Further details are included in the FRA and Drainage Strategy submitted as part of the planning application. The proposed development is intended to be permanent, so decommissioning is not anticipated for the foreseeable future.	**N/A**	
1.2 Will construction or operation of the project use natural resources above or below ground such as land, soil, water, materials / minerals or energy which are non-renewable or in short supply?	**Y**	The demolition, construction and operational phases of the proposed development will use resources in terms of land, water and energy as would be expected for a residential development.	**N**	Any potential effects during the construction phase would be mitigated using best practice measures set out within a CEMP and implemented prior to commencement of works on the site. The CEMP will include measures to minimise the consumption of natural resources, particularly those non-renewable, where possible. The proposed development will be designed to reduce any likely significant effects on natural resource consumption and include sustainable building methods where feasible to minimise the buildings' energy consumption. An Energy Strategy, Whole Lifecycle

Part 1 - Question	**Part 2 - Answer to the question and explanation of reasons** (Yes/No or Not Known (?) or N/A)		**Part 3 - Is a Significant Effect Likely?** (Yes/No or Not Known (?) or N/A)	
				Carbon Assessment and Circular Economy Statement will be submitted in support of the planning application.
1.3 Are there any areas on/around the location which contain important, high quality or scarce resources which could be affected by the project, e.g. forestry, agriculture, water/coastal, fisheries, minerals?	**N**	The site is brownfield in a densely built-up urban area and is bound by the A4089 Wembley Park Drive to the north-west, Olympic Way to the east and the Stadium Retail Park to the south. Land use immediately surrounding the site is largely commercial in nature, while there is also residential use in the wider site area. There are no locations on site such as forestry or coastal landscapes which could be adversely affected by the proposed development. There are no fisheries, tourism or minerals resources that could be affected by the proposed development.	**N**	The demolition and construction phase would lead to an increase in traffic, emissions and noise but such effects would be minimised by best practice mitigation measures, implemented through a CEMP. Effects on surrounding land uses and people will be in the context of existing development around the Site and are not anticipated to be significant. Once operational, the proposed development would be in keeping with existing and future development in the surrounding area and effects on neighbouring users are not anticipated to be significant.
2. Waste				
2.1 Will the project produce solid wastes during construction or operation or decommissioning?	**Y**	As with nearly all demolition and construction works, the proposed development will result in waste materials from the preparation and undertaking of works. There would be waste generated by the operational phase of the proposed development.	**N**	Construction waste will be reused and recycled on or off-site where possible. Any construction waste would be managed in accordance with the CEMP and all applicable legislation and disposed of in line with best practice. Operational waste will be disposed of in line with LBB's requirements and managed in accordance with all applicable legislation. LBB's recycling scheme provides recycling bins in which to recycle waste, including household food waste, cans, paper, plastic and glass. Significant quantities of construction or operational waste are not anticipated as a result of the proposed development. A Refuse Disposal and Recycling Strategy will be submitted in support of the planning application.
3. Pollution and Nuisances				

Part 1 - Question	**Part 2 - Answer to the question and explanation of reasons** (Yes/No or Not Known (?) or N/A)		**Part 3 - Is a Significant Effect Likely?** (Yes/No or Not Known (?) or N/A)	
3.1 Will the project release pollutants or any hazardous, toxic or noxious substances to air?	**Y**	During the demolition and construction phase of the proposed development, dust would be generated. There would be emissions associated with plant and vehicles during the construction phase. The proposed development will be car free (with the exception of one accessible car parking space), so there would be no significant emissions as a result of traffic movements. The proposed development is for residential use which is not associated with hazardous substances or toxic emissions to air. There is not anticipated to be a requirement to store large volumes of hazardous materials. Any such materials would be stored and handled in accordance with relevant legislation.	**N**	Dust generated during construction will be managed in accordance with standard best practice measures, enforced through a CEMP and therefore dust is not anticipated to generate significant adverse effects. The construction phase is expected to be phased, with the arrival and departure of Heavy Goods Vehicles (HGVs) dispersed across the working day to avoid a concentration of released pollutants associated with the plant and vehicles required for the construction phase. Construction vehicle emissions will be managed through the implementation of the CTMP and CEMP, secured via planning condition. There will be no emissions associated with operational traffic as the proposed development will be car free. A Transport Assessment (TA) will be submitted as part of the proposed development as well as Framework Travel Plan, which will outline the initiatives to be implemented to encourage the future residents and users of the site to travel by sustainable travel modes. In addition, an Air Quality Neutral Assessment will be submitted in support of the planning application, to demonstrate that the proposed development is air quality neutral, in line with London Plan and local policy requirements.
3.2 Will the project cause noise and vibration or release of light, heat, energy or electromagnetic radiation?	**Y**	The potential exists for noise effects to result from the construction processes and operational activities associated with the proposed development. The existing noise climate is influenced by traffic on nearby roads including the A4089 Wembley Park Drive to the north-west of the site. The potential exists for intermittent and temporary noise effects to result from construction activities. The nature of the proposed	**N**	As above, construction effects will be managed in accordance with best practice measures, implemented through the CEMP and CTMP. The CEMP will enforce hours of work and will prevent construction activities occurring outside the working hours of the week, additionally, work will be restricted on the weekends and bank holidays during the construction phase. Machinery will be turned off and noisy activities should be undertaken as far away as possible from the existing

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
		development will not cause vibration. During construction, the potential exists for light pollution (at night) associated with construction activities. No heat, energy or electromagnetic radiation will be caused or released.		receptors to further reduce the noise impact. A Noise Impact Report has been prepared and will be submitted as part of the planning application. The report identifies the detailed design specifications required to ensure an appropriate acoustic environment for future users of the site. Such design measures are standard and well understood. These would be secured via a suitably worded planning condition and significant effects are not anticipated. Lighting during construction and operation will also be designed carefully in accordance with relevant British Standards and Institute of Lighting Professionals (ILP)[10] guidance. This will be outlined in the Lighting Strategy and Assessment to be submitted in support of the planning application.
3.3 Will the project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	**Y**	The Wealdstone Brook runs east-west through the northern portion of the site. The site is predominantly in Flood Zone 2[5] meaning there is a medium probability of flooding. The area along the Wealdstone Brook is located in Flood Zone 3 which means there is high probability of flooding. As part of the planning application, a Flood Risk Assessment and Sustainable Drainage Strategy will be prepared which will incorporate Sustainable Drainage Systems (SuDS). The proposed development will not result in any significant adverse effects to water relating to contamination.	**N**	As stated in the PEA, Wealdstone Brook would be protected from impacts of construction works, such as surface water runoff and other pollution for the duration of the works. As such, significant effects are not considered likely.
3.4 Are there any areas on or around the location which are already subject to pollution or environmental damage, e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	**Y**	As previously identified, the site is located in the LBB AQMA which covers the southern two-thirds of the borough. The main pollutants of concern in the area are NO_2, PM_{10} and $PM_{2.5}$.	**N**	During demolition and construction, effects will be managed through the CEMP, which will include standard, best practice measures, such as ensuring bulk cement and other fine powder materials are delivered to the site in enclosed tankers. Dust

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
				generation would be managed in accordance with standard best practice measures, enforced through the CEMP and is not anticipated to generate significant adverse effects. A Travel Plan will also be implemented during operation of the development which will support sustainable and active travel, as such, reducing private vehicle usage on the site which may increase pollutants. An Air Quality Neutral Assessment will be submitted in support of the planning application, to demonstrate that the proposed development is air quality neutral, in line with London Plan and local policy requirements. The above measures will ensure that there are no significant effects from sources of air emissions.
4. Population and Human Health				
4.1 Will there be any risk of major accidents (including those caused by climate change, in accordance with scientific knowledge) during construction, operation or decommissioning?	**N**	During the demolition and construction activities, the contractor(s) will implement measures in accordance with Health and Safety legislation/requirements, and best practice to minimise the risks of accidents that could have adverse effects on people or the environment. All such measures will form part of the CEMP. There are no anticipated significant risks of accidents during operation as the proposed development will not involve users dealing with hazardous substances. In addition, the Sustainable Drainage Strategy for the proposed development will be designed to ensure there is no increase to flood risk on site or elsewhere and will also accommodate an allowance for climate change. The proposed buildings will be designed using best practice energy efficiency measures to	**N/A**	

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
		reduce overheating in hot temperatures, whilst retaining heat in cold temperatures. An Energy Strategy will be submitted in support of the planning application, alongside an FRA and Sustainable Drainage Strategy. An Unexploded Ordnance Assessment has been undertaken which has confirmed that there is a low risk from German and Allied unexploded ordnance at the site.		
4.2 Will the project present a risk to the population (having regard to population density) and their human health during construction, operation or decommissioning? (for example due to water contamination or air pollution)	**Y**	Dust would be generated during the construction phase of the development.	**N**	Dust generation would be managed in accordance with best practice measures, enforced through the CEMP. A Framework Travel Plan will also be implemented during operation of the proposed development which will support sustainable and active travel. Surface water run-off and foul water drainage will be managed on-site during the construction and operational phases, as detailed further in the FRA, Sustainable Drainage Strategy and Foul Sewage and Utilities Assessment submitted in support of the planning application.
5. Water Resources				
5.1 Are there any water resources including surface waters, e.g. rivers, lakes/ponds, coastal or underground waters on or around the location which could be affected by the project, particularly in terms of their volume and flood risk?	**Y**	As previously stated, the site is predominantly in Flood Zone 2 with sections along Wealdstone Brook in Flood Zone 3.	**N**	Surface water run-off and foul water drainage will be managed on-site during the construction and operational phases, meaning the Wealdstone Brook would be protected from any potential impacts. An FRA and Sustainable Drainage Statement and Foul Sewage and Utilities Assessment will be submitted with the planning application.
6. Biodiversity (Species and Habitats)				
6.1 Are there any protected areas which are designated or classified for their terrestrial, avian and marine ecological value, or any non-designated	**N**	There are no Special Areas of Conservation (SAC), Special Protection Areas (SPA), RAMSAR Sites or Sites of Special Scientific Interest	**N**	It is anticipated that the majority of existing trees on the site (particularly within the north of the site) will be retained as part of the proposed development.

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
/ non-classified areas which are important or sensitive for reasons of their terrestrial, avian and marine ecological value, located on or around the location and which could be affected by the project? (e.g. wetlands, watercourses or other water-bodies, the coastal zone, mountains, forests or woodlands, undesignated nature reserves or parks. (Where designated indicate level of designation (international, national, regional or local))).		(SSSI) on or adjacent to the site. The nearest statutory ecological designations on or adjacent to the site. As previously noted, the nearest designation to the site is Freyent Country Park Local Nature Reserve located approximately 1km north of the site. Additionally, Brent Reservoir/ Welsh Harp is located approximately 1.7km north-east of the site and is both a LNR and SSSI. The majority of the site, and to the south of the Wealdstone Brook, is of low ecological value, given it comprises of the existing College of North West London, and surrounding hardstanding (car parking).		A PEA has been undertaken for the site. The report identifies key mitigation and best practice measures to be enforced through a CEMP, such as the sensitive and appropriate timing of the removal of vegetation. Further to standard mitigation measures, appropriate landscape design and planting schemes, the proposed development is not considered to generate any significant adverse ecological effects. Furthermore, the proposed development will aim to achieve a minimum of 10% Biodiversity Net Gain on site. This will be outlined in the Biodiversity Assessment which includes the Net Gain Strategy, to be submitted in support of the planning application. The PEA identifies biodiversity enhancement opportunities which include planting of native species, incorporation of bat boxes and bird boxes, log piles for invertebrates. The area around the Wealdstone Brook would also be renaturalised as part of the proposed development increasing the ecological resource on the site.
6.2 Could any protected, important or sensitive species of flora or fauna which use areas on or around the site, e.g. for breeding, nesting, foraging, resting, over-wintering, or migration, be affected by the project?	**Y**	As above, the majority of the site is of low ecological value, given it comprises of the existing College of North West London, and surrounding hardstanding (car parking). The PEA which has been undertaken, identifies that habitats on-site have potential to support roosting bats, foraging bats and nesting birds. The site is not considered suitable for Badger, Reptiles, Great Crested Newt, Riparian Mammals or Hedgehog.	**N**	As outlined in Section 2 of this report, a number of recommended avoidance measures will be implemented to reduce the impact in terms of ecology. This will include the implementation of sensitive lighting strategies and a construction buffer for the bats and vegetation removal outside of bird nesting season. As such, significant effects are not considered likely. As stated above, the proposed development will aim to achieve a minimum of 10% Biodiversity Net Gain and will therefore enhance the natural environment for the benefit of biodiversity.
7. Landscape and Visual				
7.1 Are there any areas or features on or around the location which are protected	**N**	The site is not located within or in close proximity to an AONB, National Park, or an	**N/A**	

Part 1 - Question	**Part 2 - Answer to the question and explanation of reasons** (Yes/No or Not Known (?) or N/A)		**Part 3 - Is a Significant Effect Likely?** (Yes/No or Not Known (?) or N/A)	
for their landscape and scenic value, and/or any non-designated / non-classified areas or features of high landscape or scenic value on or around the location which could be affected by the project? Where designated indicate level of designation (international, national, regional or local).		Area of High Landscape Value. The site is not located in a Conservation Area. The nearest conservation area to the site is Barn Hill Conservation Area, located approximately 400m north of the site. The Site is not located within or close to any feature or designation of high landscape or scenic value, which would be affected by the proposed development. A Heritage Townscape and Visual Impact Assessment (HTVIA) will be submitted as part of the planning application setting out potential effects from the construction and operation of the proposed development as well as mitigation measures to avoid significant residual effects. The assessment has considered views identified by the development plan that seek to preserve and enhance the architectural integrity of the National Stadium. The view analysis has been used during design development to ensure the proposed development protects the National Stadium arch in the designated views.		
7.2 Is the project in a location where it is likely to be highly visible to many people? (If so, from where, what direction, and what distance?)	**Y**	At up to 30 storeys in height, the proposed development will be visible to people living and working around the site. The potential for local views of the site exist from adjacent and nearby roads, including the A4089 Wembley Park Drive, from Olympic Way, as well as from the existing residential, community and commercial uses surrounding the site. On completion, it will be visible to residents and employers of the consented development immediately to the south of the site.	**N**	However, the proposed development is located in an area with other established and proposed high-rise buildings as detailed in Table 3.1. It will therefore not be out of context with the present and future development that will be coming forward in the area. As noted above, a HTVIA will be submitted with the planning application which will address local and, where appropriate, long distance views.

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
		The proposed development will also be visible from areas to the north of the site due to the topography of the wider townscape that rises to the north of Wembley Park Station. The site and areas to the north are separated by a distance of c.400m at the minimum distance. The proposed development will form part of an established context of taller development visible from these locations. Therefore, significant effects are not considered likely.		
8. Cultural Heritage/Archaeology				
8.1 Are there any areas or features which are protected for their cultural heritage or archaeological value, or any non-designated / classified areas and/or features of cultural heritage or archaeological importance on or around the location which could be affected by the project (including potential impacts on setting, and views to, from and within)? Where designated indicate level of designation (international, national, regional or local).	**Y**	The site is not located within a Conservation Area, nor does it comprise any listed buildings or scheduled monuments. The closest listed buildings to the site are three k6 telephone kiosks, located approximately 350m south of the site. There are four other Grade II listed buildings within 1km of the site, as outlined in Section 2 of the report. The nearest scheduled monuments are located approximately 3.3km south-west of the site. The site is also not located in an Archaeological Priority Area.	**N**	It is expected that no features of historic importance will be significantly affected by the proposed development due to the distance and existing development that separates the features from the site. As above, a HTVIA will be submitted in support of the application, which will demonstrate that the proposed development will not have a significant impact on surrounding heritage features.
9. Transport and Access				
9.1 Are there any routes on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	**Y**	The site is bound by the A4089 Wembley Park Drive to the north-west and Olympic Way to the east. Olympic Way is a pedestrian walkway connecting Wembley Park Station (located to the north of the site) and Wembley Stadium (to the south of the site). As well as providing access to Wembley Stadium, these routes also provide access to a number of other uses and facilities in the Wembley Park	**N**	During the demolition and construction phases, standard, best practice measures will be adopted to prevent any significant effects, such as phased delivery of goods onto the site to prevent congestion and impacts on the services surrounding the site. These measures will be enforced through a CEMP and CTMP, which will be secured by planning condition. HGV movements in the demolition and construction phases are

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
		area.		anticipated to be low in frequency and volume. No significant effects on transport routes are anticipated. Working hours are to be agreed with LBB to reduce to potential effects and ensure work is carried out with minimal impact on the surrounding area. The proposed development will be car free (except for blue badge holders) so will have a negligible impact in terms in increased traffic on the site and on the surrounding network. A TA will be submitted as part of the proposed development as well as Framework Travel Plan, which will outline the initiatives to be implemented to encourage the future residents and users of the site to travel by sustainable travel modes.
9.2 Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	**Y**	As stated above, the site is bound by the A4089 Wembley Park Drive to the north-west and Olympic Way to the east. These routes would be susceptible to congestion during matchdays and events taking place at Wembley Stadium to the south of the site.	**N**	As previously detailed, measures will be included within the CEMP and CTMP to ensure the construction phase will not generate significant adverse effects. As above, the operational development will have a negligible impact in terms in increased traffic on the site and on the surrounding network. A TA and Framework Travel Plan will also be submitted in support of the planning application and will ensure that the proposed development will not generate significant effects on the local highway network because of the anticipated mode shift to sustainable transport modes. Therefore, effects are not considered to be significant.
10. Land Use				
10.1 Are there existing land uses or community facilities on or around the location which could be affected by the project? E.g. housing, densely populated areas, industry / commerce, farm/agricultural holdings, forestry, tourism, mining,	**Y**	• Michaela Community School and Sixth Form College located to the northeast of the site; • Commercial use in immediate proximity to the site, including to the east, south and west of the site;	**N**	The construction phase of the proposed development will result in construction traffic movements and potentially noise and dust however these effects will be managed by best practice measures, including the CEMP, and effective design and will not be significant, as above.

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)		Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)	
quarrying, facilities relating to health, education, places of worship, leisure /sports / recreation.		• Residential use to the north and west of the site, and new residential use associated with the Wembley Park redevelopment.		As above, a TA and Framework Travel Plan will be submitted in support of the planning application. A Noise Impact Assessment, Air Quality Neutral Assessment, Wind Microclimate Assessment, Daylight and Sunlight Assessment, FRA and Sustainable Drainage Strategy will also be submitted with the planning application.
10.2 Are there any plans for future land uses on or around the location which could be affected by the project?	**Y**	A list of nearby developments with planning permission (within 2km of the site) can be found in table 3.1. The closest development is the Stadium Retail Park (Ref: 15/5550) (Fulton Quarter of the Wembley Park Masterplan), which will be developed immediately south of the site in place of the existing Retail Park. The approved development will deliver a residential led mix-used scheme providing 995 homes and employment space for approximately 300 people.	**N**	As previous mentioned, any potential impacts from demolition and construction works on the site will be managed in accordance with standard best practice measures, enforced through a CEMP. The adjacent proposals also comprise similar land uses so would not be adversely impacted by the proposed development during operation.
11. Land Stability and Climate				
11.1 Is the location susceptible to earthquakes, subsidence, landslides, erosion, or extreme /adverse climatic conditions, e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	**N**	No.	**N/A**	
12. Cumulative Effects				
12.1 Could this project together with existing and/or approved development result in cumulation of impacts during the construction/operation phase?	**Y**	The potential exists for cumulative effects in terms of road traffic and noise emissions from the cumulative developments in Table 3.1, however these are not considered to be significant. Table 3.2 lists the criteria and key issues set out in PPG for when significant effects on the environment are anticipated for 'Urban development projects'. The key issues to consider for Urban development projects	**N/A**	

Part 1 - Question	Part 2 - Answer to the question and explanation of reasons (Yes/No or Not Known (?) or N/A)	Part 3 - Is a Significant Effect Likely? (Yes/No or Not Known (?) or N/A)
	are the physical scale of such developments and the potential increase in traffic, emissions and noise. Each scheme will implement a Construction Management Plan during the construction phase, which should mitigate any potentially significant effects that could arise. Given the urban context of the site's location, it is considered that the intervening-built form and topography and the distance between majority of the schemes and the site are to be sufficiently separated as to not give rise to significant effects. The TA that will be submitted in support of the planning application will assess the impact the proposed development and the cumulative growth from other schemes within the borough, including those identified in Table 3.1 will have on the local highway network and set out the required mitigation measures if adverse effects are anticipated. Given the urban location of the site and the close proximity of existing public transport links, a Travel Plan for each scheme will be prepared to promote the use of sustainable transport modes, therefore significant effects on the local highway network are not anticipated. The new residential units will vary in size and tenure to meet the local housing demand. The proposed development will be designed to be high quality whereby the residential units will be more energy efficient and access to open space will be improved. The developments set out in Table 3.1 also comprise of similar uses, therefore,	

Part 1 - Question	**Part 2 - Answer to the question and explanation of reasons** (Yes/No or Not Known (?) or N/A)		**Part 3 - Is a Significant Effect Likely?** (Yes/No or Not Known (?) or N/A)
		similar socio-economic effects are anticipated. On this basis, cumulative socio-economic benefits are anticipated.	
Transboundary Effects			
13.1 Is the project likely to lead to transboundary effects?	**N**	No.	**N/A**

4 CONCLUSION

4.1 The screening assessment has considered whether the development of up to 310residential dwellings and ground floor commercial uses on 0.5ha of land at Wembley Park is likely to give rise to significant effects on the environment.

4.2 The development falls within Schedule 2, 10 (b) of the EIA Regulations, as an urban development project. The site is not located within a sensitive area as defined by the EIA Regulations and is less than 5 ha in size but falls above the indicative criteria and screening threshold of more than 150 dwellings. It should be noted that the PPG states that only a very small minority of Schedule 2 development will require EIA.

4.3 With regard to the indicative criteria and thresholds identified in the PPG (set out in Table 2 above) it is considered that the proposals when considered cumulatively with other proposed and permitted development would exceed the 1,000 dwelling threshold but falls under the 10,000 sqm of commercial floorspace threshold. However, the proposed development would be in keeping with the current nature and scale of the surrounding development and would not result in significant effects in an already heavily urbanised area and with existing and proposed tall buildings in the surrounding area.

4.4 It is considered that the principal environmental effects from the proposed development would relate to the height of the proposed buildings, construction traffic movements and associated noise and air quality emissions, although as set out in Table 3 above, these effects could be managed in accordance with standard methods, including the implementation of a CEMP.

4.5 In summary, the screening assessment has identified that significant effects on the environment are not considered likely. Even though the proposals would be tall when considered cumulatively with other future developments, the location of the Site has good access and is within a densely populated area with other high-rise buildings. The effects that may arise could be appropriately managed in accordance with standard methods. The proposed development is therefore not considered to be formal EIA development as defined by the EIA Regulations.

4.6 The planning application will be supported by a suite of environmental reports, including:

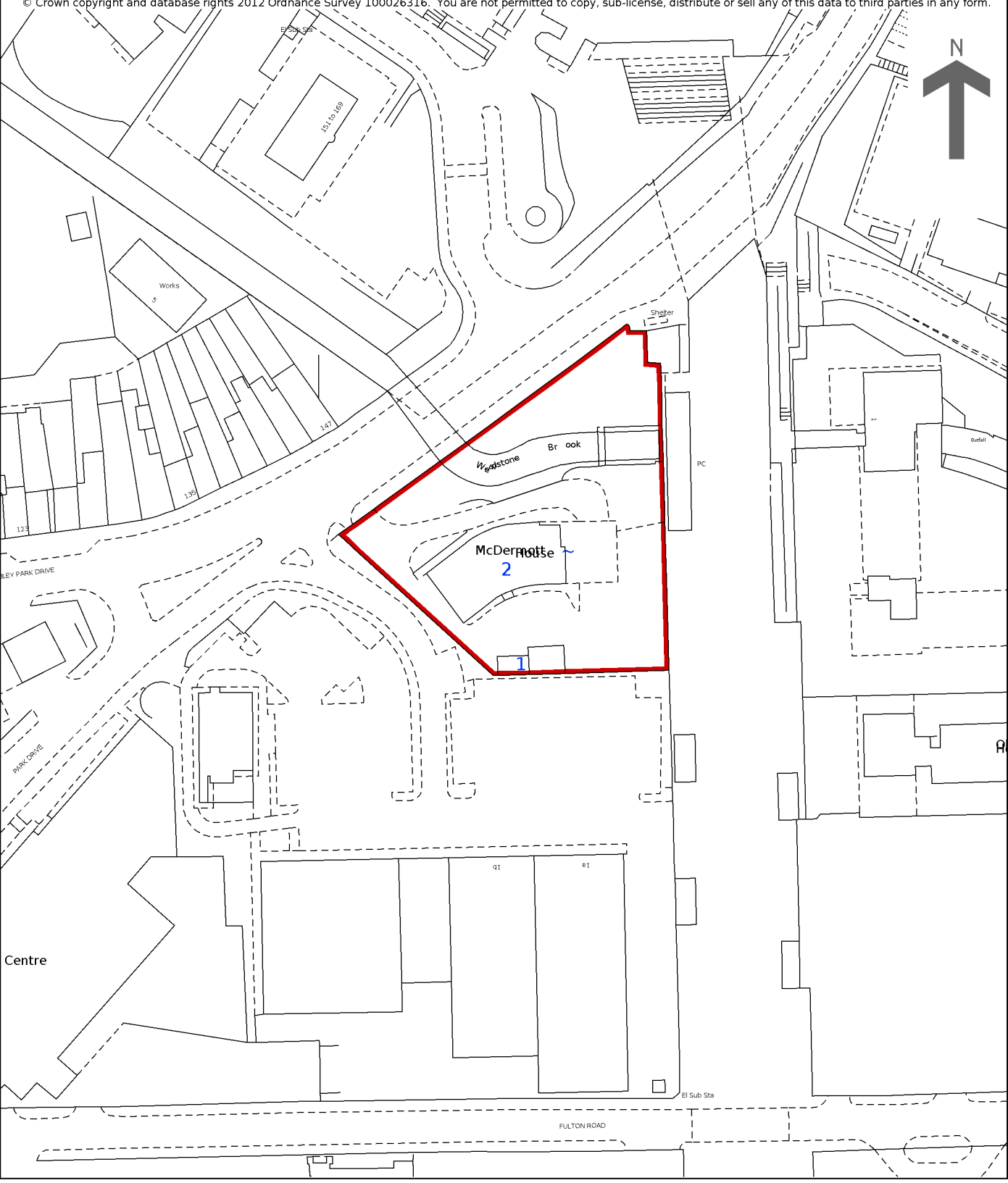
- Transport Assessment
- Framework Travel Plan
- Sustainability Statement
- Energy Strategy including Overheating assessment

- Whole Lifecycle Carbon Assessment
- Circular Economy Statement
- Wind Microclimate Assessment
- Flood Risk Assessment
- Sustainable Drainage Strategy
- Foul Sewage and Utilities Assessment
- Tree Survey/ Arboricultural Impact Assessment
- Noise Impact Assessment
- Air Quality Neutral Assessment
- Refuse Disposal and Recycling Strategy
- Sunlight and Daylight Assessment
- Biodiversity Assessment including Net Gain Strategy
- Lighting Strategy and Assessment
- Heritage, Townscape and Visual Impact Assessment (HTVIA)

APPENDIX A
SITE LOCATION PLAN

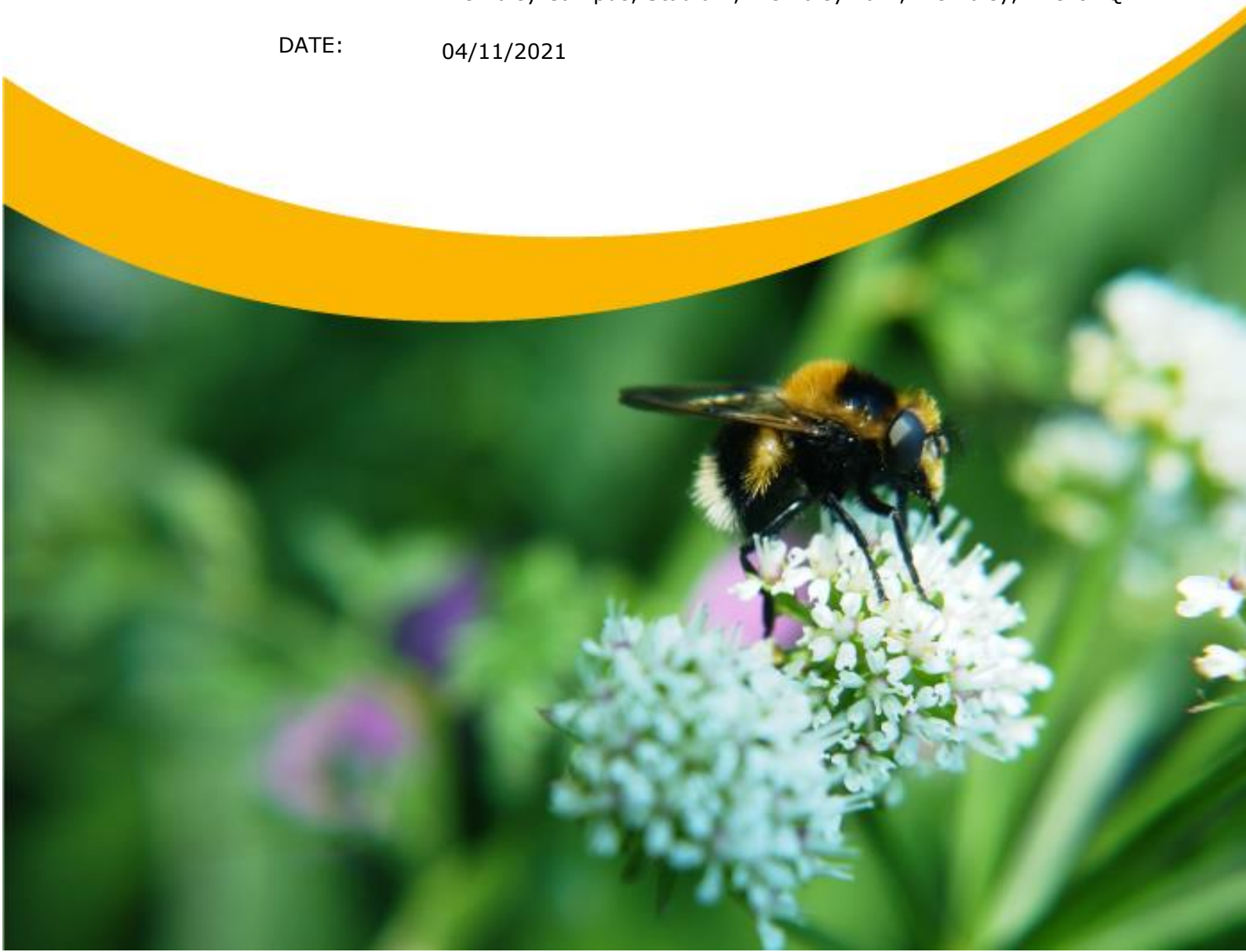
HM Land Registry
Current title plan

Title number **MX343392**
Ordnance Survey map reference **TQ1986SW**
Scale **1:1250**
Administrative area **Brent**



GEOSPHERE ENVIRONMENTAL

REPORT NUMBER:	5935,EC,PEA,RH,RF,KL,04.11.21,V1
SITE:	Wembley Campus, Stadium, Wembley Park, Wembley, HA9 8HQ
DATE:	04/11/2021



DOCUMENT CONTROL SHEET

Report Number:	5935,EC,PEA,RH,RF,KL,04.11.21,V1
Client:	The Hill Group
Project Name:	Wembley Campus, Stadium, Wembley Park, Wembley, HA9 8HQ
Project Number:	5935,EC
Report Type:	Preliminary Ecological Appraisal and External Bat Scoping Survey
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Please note that the reported surveys were conducted on the date(s) stated in the report and that it represents site conditions at the time of the visit. The findings and recommended mitigation are based on these conditions. If site conditions change materially after the site survey, the original report cannot be relied upon and will need to be updated. Ecological reports can typically be relied on for 18 to 24 months from the date of survey.

Prepared By:	Reviewed By:	Authorised By:
Rachel Hall Ecologist	Richard Fenna Senior Ecological and Arboricultural Consultant	Katie Linehan Technical Director of Ecology

VERSION RECORD

Version	Date	Document Revision Details	Prepared By:	Admin

Non-Technical Executive Summary

Report Description		This Preliminary Ecological Appraisal report has been prepared by Geosphere Environmental Limited for The Hill Group and relates to the proposed development of the site at Wembley Campus, Stadium, Wembley Park, Wembley, HA9 8HQ. The purpose of this report is to identify potential ecological constraints to development, particularly in relation to potential legally protected species onsite, confirm the need for further survey work to confirm all baseline ecological conditions, if necessary and highlight opportunities for ecological enhancement.
Summary of Main Findings		The site comprises: Two buildings and hardstanding, Introduced shrubs, Amenity grassland, a section of Wealdstone Brook and associated bridges, Defunct species-poor hedgerow; and Scattered trees. The majority of the site comprises hardstanding with two buildings. Wealdstone Brook divides the northern and southern parcels of the site. The brook had vertical concrete walls/banks on both sides of the waterbody of approximately 2m high. The northern parcel is surrounded by a brick wall, and is accessible only by a foot bridge. The findings of the extended Phase 1 Habitat Survey confirm that the habitats onsite have the potential to support roosting bats, Foraging bats and nesting birds. The site is not considered suitable for Badger, Reptiles, Great Crested Newt, Riparian Mammals or Hedgehog.
Ecological Constraints		The constraints to development will be the removal of habitats considered suitable for protected species, including scattered trees, introduced shrubs and hedgerows suitable for roosting and foraging bats and breeding birds. A full preliminary roost assessment of the bridges could not be undertaken. Although no roost potential features were noted from observed areas, the presence of features under the bridges could not be confirmed. As such the bridges adjacent to the site could provide potential bat roosting habitat and should be protected from disturbance such as lighting as a precautionary measure. Wealdstone Brook will need to be protected from impacts of construction works, such as surface water runoff and other pollution for the duration of the works.

Avoidance measures & Timings of Works to reduce impact		**Roosting Bats:** The bridges and tree with roost potential (Bridge structure A and B, and T1) should be retained and protected with a sensitive lighting scheme and appropriate construction buffer to prevent impacts from vibration and noise during construction. If impacts cannot be avoided a PRA will be required on the Bridge structures. Specific details regarding protection during construction should be included within a Construction Environmental Management Plan (CEMP), **Foraging Bats:** The northern parcel vegetation and Wealdstone Brook offers suitable commuting routes for bats. A sensitive lighting scheme should be designed to ensure that retained foraging habitat along the northern parcel of land and Wealding Brook is protected from increased lighting during and post construction. However, if lighting cannot be designed to avoid impact, additional surveys may be required. **Birds:** Given the onsite presence of potential bird nesting habitat, any clearance of vegetation, should be timed to avoid the bird breeding season (March-August inclusive). If this is not possible, these habitats can only be removed following confirmation by a suitably qualified Ecologist that they are not in active use by nesting birds.
Further Survey Work Required		If impacts cannot be avoided, further surveys will be required as followed: • Full Preliminary Roost Assessment of Bridge A and B, if they are to be impacted by works. This would need to be done from boat to assess the structure fully; • If the lighting scheme cannot be designed to avoid impact, additional bat foraging surveys may be required.
Biodiversity Enhancement Opportunities		The following has been recommended for consideration within the final development scheme: • Planting of native plant species beneficial to wildlife should be incorporated into the final design; • The final development plan should incorporation of bat boxes, bird boxes, or a "bird friendly eves design" into the scheme. • Log piles placed along the northern boundary to enhance the site habitats for invertebrates. • Biodiversity Net Gain -Metric calculations will likely be a requirement of planning, in order to show that net gain can be achieved.
Conclusions		The recommendations within Section 7 of this report should be adhered, to reduce the impact on protected species. Provided the recommendations within Section 7 of this report are undertaken and mitigation measures adhered to, then potential negative impacts on protected species, if present, will be negligible.

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TABLES

1. INTRODUCTION

This Preliminary Ecological Appraisal report has been prepared by Geosphere Environmental Limited for The Hill Group and relates to the proposed development of the site at Wembley Campus, Stadium, Wembley Park, Wembley, HA9 8HQ. This report also includes an external bat scoping survey of the buildings onsite and any trees which are to be removed as part of the development.

The report relates to the proposed development of the 0.4 hectare (ha) site however, to include approximately 280 residential units within the southern parcel of the site. The site is located at National Grid reference TQ193861.

The development boundary is shown on Figure 1 below:

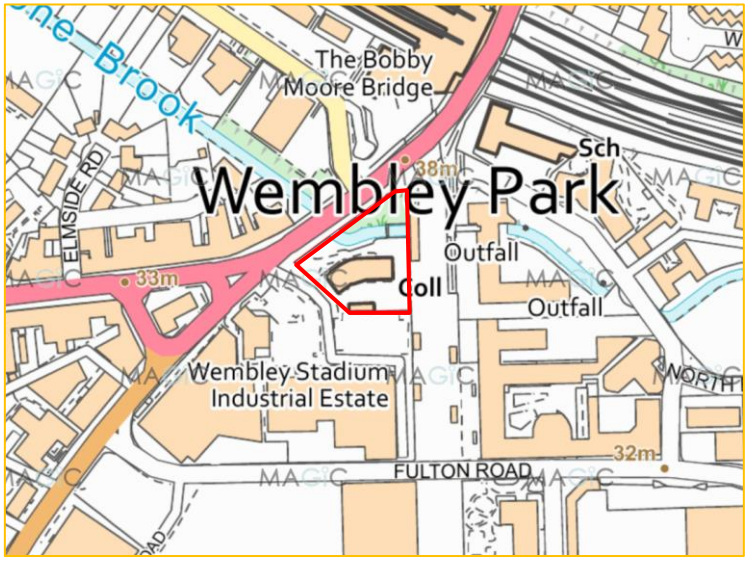


Figure 1 –The proposed development boundary is outlined in red

Any limitations and conditions pertaining to the report are stated within Appendix 1, with a full list of technical references provided within Appendix 2.

1.1 Aims

This report provides baseline data for the assessment of the ecological features of the site and identifies any potential constraints with regards to protected species. It also outlines recommendations for further surveys if necessary.

2. LEGISLATIVE AND POLICY CONTEXT

2.1 Current UK Legislation

The main legislation that applies to ecological issues within England and Wales is as follows:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 transposes 'The Conservation of Habitat and Species Regulations 2017', regarding the conservation of natural habitats and of wild fauna and flora (formally the EC Habitats Directive). Under the regulations, public bodies have a duty in exercising their functions to provide for the protection of 'Habitats Sites' and 'European Protected Species' (EPS).
- The Wildlife and Countryside Act 1981, (WCA) (as amended) provides detail on a range of protection and offences relating to wild birds, other animals, and plants. The level of protection depends upon which Schedule of the Act the species is listed on. Licences are available for specific purposes to permit actions that would otherwise constitute an offence in relation to species.
- The Natural Environment and Rural Communities, (NERC), Act 2006 imposes an obligation on all public bodies, including local authorities, to consider whether their activities can contribute to the protection of wildlife. Section 41 (S41) of the Act requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England and states that: "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity."

Species-specific legislation is detailed within Appendix 4.

2.2 Planning Policy

The recommendations of this report are in line with the key principles of the Ministry of Housing, Communities and Local Government (MHCLG) (2021) National Planning Policy Framework (NPPF) (ref. **R.1**) and Government Circular 05/06: Biodiversity and Geological Conservation – (ref. **R.2**).

Local planning policies relating to ecology are invariably based upon the conservation of species protected under the above legislation, including species and habitats of principal importance listed under Section 41 of the NERC Act 2006; and the protection of designated sites.

All of these features are considered within the scope of this Preliminary Ecological Appraisal and therefore any recommendations made herein, are likely to be in line with this policy.

3. METHODOLOGY

3.1 Technical Approach

The Preliminary Ecological Appraisal has been undertaken following guidelines provided by CIEEM's Guidelines for Preliminary Ecological Appraisal (ref. **R.3**) and BS 42020: 2013 Biodiversity standards (ref. **R.4**) to provide an indication of the ecological value of the site and the potential for the site to be used by protected species.

Scientific names and common names of plant species identified are as they appear in Stace, (ref. **R.5**).

The conclusions and recommendations for further works are in accordance with current legislation and guidance.

3.2 Ecological Desk Study

A data search was conducted of freely available biological records. The sources of information included:

- The Multi-Agency Geographic Information for the Countryside (MAGIC) online database (ref. **R.6**) was consulted to obtain geographic information on key statutory designated nature conservation sites of relevance to the site.
- Greenspace Information for Greater London (GiGL) was contacted to provide details of legally protected species and non- statutory designated conservation sites within 1km of the site. Only records of protected species from within the last ten years are considered within this report.
- Ordnance survey maps were used to identify ponds/ditches within 500m of the site to assess the potential for Great Crested Newt (GCN) within the immediate vicinity of the site.

All relevant desk study data obtained is attached in Appendix 5, except for detailed lists of species given the sensitive nature of the information.

3.3 Preliminary Ecological Appraisal

The surveys used to inform the Preliminary Ecological Appraisal comprise of a Phase 1 Habitat and Protected Species Scoping Survey, more often referred to as an extended Phase 1 Habitat Survey.

An extended Phase 1 Habitat Survey of the site was undertaken on 5 October 2021 by Rachel Hall (Ecologist) BSc (hons) Natural England Level 1 Bat Class Survey Licence (2020-6136-CLS-CLS) Natural England Great Crested Newt Survey Licence level 1 (WML-CL08- licence number 2018-36580-CLS-CLS). The weather conditions at the time of the survey were 90% cloud cover, gentle breeze (Beaufort Scale 3) and an approximate temperature of 12°C.

The Phase 1 Habitat Survey involved a walkover of the site in which the habitats are classified according to JNCC Phase 1 Habitat Survey guidelines, (ref. **R.7**). The frequency and cover of each species identified as they are distributed in each habitat is estimated using the DAFOR scale, (ref. **R.8**), as follows:

- Dominant - >75% cover;
- Abundant – 51-75% cover;
- Frequent – 26-50% cover;
- Occasional – 11-25% cover;
- Rare – 1-10% cover;
- Locally dominant (LD), abundant (LA) and frequent (LF) is also used where the distribution is patchy.

The site was assessed for its suitability to support protected species and other species of conservation importance, which could pose a planning constraint. All signs and areas of habitat considered suitable for protected species or those of conservation interest, were recorded and photographed. These include burrows, droppings, footprints / paths, hairs, refuges and particular habitat types, such as ponds, known to be used by certain class of fauna. Any mammal paths found were noted down and followed where possible. Sites are taken in the context of their surroundings and so include the immediate environs outside of site boundaries, where appropriate.

All ponds within 500m of the site were also assessed for their suitability for Great Crested Newt (*Triturus cristatus*) if the ponds were publicly accessible or if access had been granted prior to the survey. This includes a habitat suitability index (HSI) assessment (ref. **R.9**) which assesses the pond based upon a number of factors including the size, water quality, permanence, shading, presence of fish, the number of nearby ponds and macrophyte cover. A score between 0 and 1 is given; where 0 represents poor suitability and 1 represents excellent suitability.

3.4 Bat Scoping Survey

The bat scoping survey has been undertaken by Rachel Hall (Ecologist) (Bat Survey Licence number: Bat Class Survey Licence 2020-6136-CLS-CLS) and was undertaken at the same time as the ecological walkover.

The scoping survey for bat roost potential was undertaken in accordance with Bat Conservation Trust (BCT), JNCC and Natural England guidelines (refs. **R.10**, **R.11** and **R.12** respectively).

If bats or any other European protected species are found to be present onsite and the proposed activities will cause disturbance or destruction of a roost site then this report will only summarise the potential requirements. For works to continue a detailed mitigation plan with appropriate compensation measures would be required and a development licence would need to be sought from Natural England.

3.4.1 External Inspection of Buildings

A visual inspection of the buildings was undertaken to identify the suitability of the building to provide potential roost space for bats. In particular, potential access points and evidence of bats were searched for. This was carried out in full day light with the aid of binoculars, endoscope, torch and ladders to identify the following features:

- Age and structure of the building;
- Condition of the roof noting any missing, dislodged or lifted tiles that would provide entry;
- Condition of the walls, doors and windows that may also provide entry;
- Windowsills, walls and sheltered areas are searched for bat droppings;
- Grease marks, scratch marks and urine staining around possible entry points.

3.4.2 Inspection of Trees

All established trees that could be accessed onsite were inspected and assessed in terms of their suitability (negligible, low, moderate or high) to support roosting bats, in line with the Bat Conservation Trust (BCT) survey guidelines (ref. **R.10**).

3.5 Ecological Impact Assessment

The ecological evaluation and impact assessment detailed below is based upon CIEEM Guidelines for Ecological Impact Assessment in the United Kingdom, (ref. **R.13**).

CIEEM Guidelines state that the value or potential value of an ecological resource or feature should be determined within a defined geographical context from an international to site scale as follows:

- On an International scale, e.g. Ramsar, SAC or SPA site;
- On a UK scale, for example a SSSI or a National Nature Reserve, (NNR);
- On a National scale, e.g. a reserve of importance to England/Northern Ireland/Scotland/Wales;
- On a Regional scale, e.g. a local site with important regional habitats or UKBAP species;
- On a County scale, e.g. a local site with a habitat that is characteristic of the County or rare on a County scale, or with LBAP species;
- On a District scale, e.g. a site with wildlife corridors likely to improve the biodiversity of the area;
- Local or Parish, e.g. areas of green space in a predominantly urban environment;
- On a Site scale, e.g. habitats with value within the zone of influence only.

The potential for protected species to use the habitats onsite contributes significantly towards the potential value of the habitats onsite.

4. DESK STUDY RESULTS

4.1 Nature Conservation Sites

There are no designated sites within the site boundary.

4.1.1 Non-Statutory Sites

Biological records have confirmed the presence of 8 non-statutory designations within the 1km search radius. The closest of which is Wealdstone Brook Wembley Park Section located approximately 130m north west from site and is comprised a belt of woodland that runs along the length of the north of Wembley Park site which acts as a wildlife corridor.

4.1.2 Statutory Sites

Three statutory designated nature conservation sites are located within 2km of the site comprising two Local Nature Reserves (LNR) and a Site of Special Scientific Interest (SSSI). The closest site is a designated Local Nature Reserve (LNR) Fryent County Park located 915m south west of the site. This 22.60 hectare (ha) site comprises Native Broadleaved Woodland, Scrub, Neutral Grassland and Amenity Grassland. This LNR is separated from site by large residential development and roads.

4.1.3 Habitats Sites

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 provides an additional level of protection for sites of internationally value, specifically Special Protection Area (SPA), Special Area of Conservation (SAC) and Ramsar. As such, a wider 5km search was undertaken for internationally protected sites. No internationally protected sites were identified within 5km of the site.

4.2 Protected Species Records

There are multiple records of protected and notable species listed within 2km of the site returned from GiGL. Absence of records should not be taken as confirmation that a species is absent from the search area.

Table 1 provides a summary below:

Table 1 – Selected Protected Species Records

Common Name	Scientific Name	Biological Records Within 2km	Date of Most Recent Record	Protective Status *
Amphibian				
Great Crested Newt.	*Triturus cristatus*	No	N/A	HabsDir, WCA Sch 5 + 6, Priority species.

Table 1 – Selected Protected Species Records

Common Name	Scientific Name	Biological Records Within 2km	Date of Most Recent Record	Protective Status *
Reptile				
Common Lizard.	*Zootoca vivipara*	No	N/A	WCA Sch 5, Priority species.
Slow Worm	*Anguis fragilis*	Yes	2021	WCA Sch 5, Priority species.
Adder.	*Vipera berus*	No	N/A	WCA Sch 5, Priority species.
Grass Snake	*Natrix helvetica*	No	N/A	WCA Sch 5, Priority species.
Mammal				
Badger	*Meles meles*	Confidential record	-	PBA.
Otter	*Lutra lutra*	No	N/A	HabsDir, WCA Sch 5 + 6, Priority species.
Water Vole	*Arvicola amphibius*	No	N/A	HabsDir, WCA Sch 5 + 6, Priority species.
Hedgehog	*Erinaceus europaeus*	Yes	1999	WCA Sch 6, Priority species.
Barbastelle Bat	*Barbastella barbastellus*	No	N/A	HabsDir, WCA Sch 5 + 6, Priority species.
Brandt's Bat	*Myotis brandtii*	No	N/A	HabsDir, WCA Sch 5 + 6.
Whiskered Bat	*Myotis mystacinus*	No	N/A	HabsDir, WCA Sch 5 + 6.
Natterer's Bat	*Myotis nattereri*	No	N/A	HabsDir, WCA Sch 5 + 6.
Serotine Bat	*Eptesicus serotinus*	Yes	2007	HabsDir, WCA Sch 5 + 6.
Noctule Bat	*Nyctalus noctula*	Yes	2007	HabsDir, WCA Sch 5 +6, Priority species.
Leisler's bat	*Nyctalus leisleri*	Yes	2007	HabsDir, WCA Sch 5 + 6.
Soprano Pipistrelle	*Pipistrellus pygmaeus*	Yes	2008	HabsDir, WCA Sch 5 + 6, Priority species.
Common Pipistrelle	*Pipistrellus pipistrellus*	Yes	2008	HabsDir, WCA Sch 5 + 6.
Nathusius's pipistrelle	*Pipistrellus nathusii*	Yes	2007	HabsDir, WCA Sch 5 + 6.
Brown Long-eared Bat	*Plecotus auritus*	Yes	2020	HabsDir, WCA Sch 5 + 6, Priority species.
Daubenton's bat	*Myotis daubentonii*	Yes	2008	HabsDir, WCA Sch 5 + 6.
Hazel Dormouse	*Muscardinus avellanarius*	No	N/A	HabsDir, WCA Sch 5 + 6, Priority species.
Plants				
Six NERC Act Section 41 species were identified such as Pheasant's-eye (*Adonis annua*), Small Fleabane (*Pulicaria vulgaris*), Corn Buttercup (*Ranunculus arvensis*) and Shepherd's-needle (*Scandix pecten-veneris*) however, these records where all over 10 years old.				

Table 1 – Selected Protected Species Records				
Common Name	**Scientific Name**	**Biological Records Within 2km**	**Date of Most Recent Record**	**Protective Status ***
Invertebrates				
26 NERC Act Section 41 species were returned within the Biological records, including White Ermine *(Spilosoma lubricipeda),* Small Square-spot (*Diarsia rubi*), Brinled Beauty (*Lycia hirtaria)*, Cinnabar (*Tyria jacobaeae*) Oak Hook-tip (*Watsonalla binaria*) and Buff Ermine (*Spilosoma lutea*) however, these records where all over 10 years old. Stag Beetle (*Lucanus cervus)* was recorded in 2019, and Jersey Tiger (*Euplagia quadripunctaria*) was recorded in 2017				
Birds				
1 WCA Schedule 1 species were returned within the Biological records including Red Kite (*Milvus milvus*). BoCC Red List species were also identified within the desk study, including House Sparrow (*Passer domesticus),* Dunnock (*Prunella modularis*) Song Thrush *(Turdus philomelos)*.				
Notes: *WCA Sch 1 - Wildlife and Countryside Act (1981) Schedule 1. WCA Sch 5 - Wildlife and Countryside Act (1981) Schedule 5 (Killing, injuring and sale of certain species), WCA Sch 6 - Wildlife and Countryside Act (1981) Schedule 6 (Animals which may not be killed or taken by certain methods), WCA Sch 8 - Wildlife and Countryside Act (1981) Schedule 8 (Plants which are protected), Priority species- species listed within UK Biodiversity Action Plan Species, and Natural Environment and Rural Communities Act (2006) Section 41. Species and Habitats of Principal Importance. PBA - Protection of Badgers Act (1992). HabsDir- Conservation of Habitats and Species Directive (2010) Annex II, Annex IV. BoCC Red / Amber - Birds of Conservation Concern - Red or Amber listed.				

4.3 Habitat Suitability Index Assessments

No ponds are located within 500m of the site. Wealdstone brook was identified onsite and shown on Drawing ref. 5935,EC/001/Rev0, in Appendix 3. However, an HSI assessment was not undertaken as the waterbody was deemed unsuitable for GCN.

5. FIELD SURVEY RESULTS

The results of the Phase 1 habitat survey and protected species scoping survey are detailed below and annotated on Drawing ref. Drawing ref. 5935,EC/002/Rev0, attached in Appendix 3. Descriptions of the target notes (TN) are included in Appendix 6.

5.1 Site-Specific Limitations

Due to the time of year the survey was undertaken, some plant species are not identifiable. However, this does not affect classification of habitats present.

The introduced shrubs, in particular along the northern boundary are overgrown and, in some places, a steep gradient is present leading to the concrete bordered, Wealdstone Brook. For health and safety reasons, the lone surveyor did not enter these areas. In combination, these features prevented full access to the whole site. Where access was not practicable, observations of habitats as far as possible were used to inform the Phase 1 plan.

5.2 Phase 1 Habitat Survey

The following habitat types were recorded within the survey area:

- Two buildings (B1 and B2) and hardstanding;
- Introduced shrubs;
- Amenity grassland;
- Waterbody (Brook) with bridges;
- Defunct species-poor hedgerow; and
- Scattered trees.

These habitats outlined above and are discussed in more detail below.

5.2.1 Habitat Within the Development Zone

The majority of the site comprises hardstanding with two buildings, referred herein as B1 and B2 (TN1 and TN2). Wealdstone Brook divides the northern and southern parcels of the site (TN3 and TN4). The brook had concrete walls/banks on both sides of the waterbody of approximately 2m high. The northern parcel is surrounded by a brick wall, and is accessible only by a foot bridge.

The northern parcel of the site mainly comprises introduces shrubs (TN5, TN6, TN7) with occasional species such as Butterfly-bush (*Buddleja davidii*), Hollyberry Cotoneaster (*Cotoneaster bullatus*) and a rare occurrence of a Castor Oil Plant (*Fatsia japonica*). The amenity grassland was dominated by grass species such as Perennial Rye-grass (*Lolium perenne)* with rare occurrences of forbs such as White dead-nettle (*Lamium album*), and Bristly Oxtongue (*Helminthotheca echioides)*.

Scattered trees on site include of Hybrid black Popular (*Populus x canadensis*), Broad-leaved Kindling Bark (*Eucalyptus dalrympleana*), Weeping Ash (*Fraxinus excelsior Pendula),* with Sycamore (*Acer pseudoplatanus)* saplings, Holly (*Ilex aquifolium)* Dogwood *(Cornus sanguinea)* Hawthorn (*Crataegus monogyna)* and Ash *(Fraxinus excelsior) (*TN8).

6. SPECIES APPRAISAL

6.1 Plants

No records of rare plants were returned within biological records and no evidence of any rare plants was noted during the site survey.

All of the plant species recorded at the site are common and widespread native or naturalised species or else ornamental, non-native species, including a minority of invasive species Hollyberry Cotoneaster which is listed in Schedule 9 of the Wildlife and Countryside Act 1981 and is subject to Section 14 of this Act. It is an offence to plant or cause this species to grow in the wild.

It should be noted that additional plant species may be present at the site at other times of the year. That said, given the nature of the identified habitats (i.e. themselves common and widespread) within and immediately adjacent to the proposed works areas, no notable plant species are expected within the affected areas. The site's proposed re-development is therefore expected to be unconstrained by notable flora.

6.2 Invertebrates

The majority of areas that will be impacted are of low species diversity, including introduced shrubs and scattered trees and are unlikely to support an assemblage of rare invertebrates.

6.3 Bats

6.3.1 Buildings and Structures

Selected photographs of the scoping survey are included in Appendix 6 and details of the potential roost features identified and their suitability are provided in Table 2 overleaf:

Table 2 – Bat Roost Suitability of Buildings and Stuctures			
Ref. No.	**Building Description**	**Potential Roost Feature**	**Bat Roost Suitability**
B1 	Seven-story, brick building with flat roof.	No obvious features observed.	Negligible.
B2 	Garage/storage building single story flat roof with brick walls.	No obvious features observed.	Negligible.
Bridge structure A 	Olympian Way Bridge for Wealdstone Brook comprising concrete.	No features were visible from bank however, full access wasn't possible to fully assess the structure – therefore it is possible that potential roost/hibernation features could be present.	Low – to be ruled out following full PRA assessment if impact cannot be avoided.
Bridge structure B 	Wembley Park Drive Bridge for Wealdstone Brook comprising concrete.	No features were visible from bank however, full access wasn't possible to fully assess the structure – therefore it is possible that potential roost/hibernation features could be present.	Low– to be ruled out following full PRA assessment if impact cannot be avoided.
*based on external assessment unless stated otherwise			

6.3.2 Trees

The preliminary roost assessment of the established trees onsite identified one tree of low or higher suitability to support roosting bats. The location of this tree is shown on Drawing ref. 5935,EC/002/Rev0 attached in Appendix 3.

Details of the potential roost features identified in these trees and their suitability are provided in Table 3 overleaf:

Table 3 – Bat Roost Suitability of Trees (Ground Level Assessment)			
Ref. No.	**Species**	**Potential Roost Feature/ direction and height on tree**	**Bat Roost Suitability**
T1 	Hybrid black Popular	Semi-mature tree with ivy that may be covering other PRF's.	Low

6.3.3 Foraging

The scattered trees, introduced shrub, and brook offers a small amount of commuting and foraging habitat for bats. The connectivity of the site with surrounding suitable habitats is limited, however there is some connectivity to the wider area via Wealdstone Brook. As the majority of the site is hardstanding with a small area north of the site being vegetated, the site was deemed to have low suitability habitat for foraging bats.

6.4 Amphibians

There are no ponds within 500m of the site. Wealdstone brook is onsite and referred to as waterbody 1 on Drawing ref. 5935,EC/001/Rev0 within Appendix 3. However, an HSI assessment was not undertaken as the waterbody was deemed unsuitable for GCN.

The site is not considered to support Great Crested Newts.

6.5 Reptiles

The majority of the site comprises hardstanding and building, situated within with a heavily built up area. The area of soft landscaping to the north, is isolated by a brick wall and Wealdstone Brook, accessible only by a foot bridge. A s such, the site is not considered suitable for reptiles.

6.6 Birds

The buildings, scattered trees, introduced shrub and hedgerow provide suitable nesting habitat for common and widespread species. During the walkover survey Feral Pigeon (*Columba livia*) were observed flying oversite.

6.7 Badger

Due to the lack of suitable habitat on site and its isolated nature with lack of connectivity to suitable habitat the site is not deemed suitable for Badger.

6.8 Dormouse

No records of Hazel Dormouse were returned in the desk study. Dormouse require a large area of connected habitat for a population to survive. The site is situated in an area separated from any habitat corridors to areas of suitable habitat. The site is not considered suitable for Dormouse.

6.9 Riparian Mammal

The Brook which intersects the site was deemed unsuitable to riparian mammals such as Otter and Water Vole due to the steep concrete banks of approximately 2m height. Otters may pass through the Wealdstone Brook, but will not be able to leave the brook to access the site. The site is not considered suitable for Otter or Water Vole.

6.10 Hedgehog

The small area of soft landscaping within the northern parcel of land is isolated by a brick wall and the Wealdstone Brook, accessible only by a foot bridge, and is therefore unsuitable for Hedgehog.

7. EVALUATION, CONSTRAINTS AND RECOMMENDATIONS

7.1 Proposed Development

Final layout of the site is yet to be confirmed however, the development will comprise approximately 280 residential units (private and shared) with approximately 1150m^2 of Green Space.

7.2 Nature Conservation Sites

The desk study identified three nature conservation sites with statutory designation within 2km of the site, and eight non- statutory designated nature conservation sites within 1km radius of the site. No internationally protected sites, were noted within 5km.

The development site does not contain any habitats which could support the important species associated with either the statutory or non-statutory site, there no potential habitat connectivity between the site and the statutory site.

It is considered unlikely, given the distance from the survey area and localised nature of the proposed development works, that the Nature Conservation sites listed above will be directly affected by any construction activity on the surveyed area.

7.3 Habitat Sites

No internationally protected sites were identified within 5km of the site. The site is located within an Impact Risk zone, though the proposed residential development is not listed within the risk categories (which includes high risk developments such as quarries, incineration plants, Landfill etc.). Therefore, development of the site is not considered to impact any Habitats sites.

7.4 Habitat Constraints

The proposed development should aim to deliver a Biodiversity Net Gain, by including more habitat area, and better-quality habitat within the proposals, than are currently present onsite. Metric calculations will likely be a requirement of planning in order to show how that net gain can be achieved.

The ecological constraints regarding general habitats onsite are detailed within Table 4 overleaf, along with associated recommendations for avoidance and/or mitigation to reduce likely impact:

Table 4 – Habitat Constraints and Recommended Actions

Habitat	Value/Importance	Impact without Appropriate Mitigation	Recommended Actions (Avoidance Measures or Recommendations to Reduce Impact)
Wealdstone Brook.	Rivers are UK BAP habitats, and provides potential foraging and commuting routes for bats .	Potential impacts from construction such as pollution incidents would have an impact of site to district significance.	Wealdstone Brook should be protected from impacts of construction works, such as surface water runoff and other pollution for the duration of the works.
Mature Trees.	Mature trees have intrinsic ecological value, and provide islands of habitat in urban areas.	Unmitigated removal would have an impact of site significance.	Mature trees should be retained where possible. Any trees that are removed during development should be replaced within the landscaping of the final development using similar species. Protection measures should be implemented according to BS 5837: 2012 'trees in relation to design, demolition and construction' (ref. **R.14**).

7.5 Legally Protected and Notable Species

The ecological evaluation and impact assessment for protected species is detailed Table below:

Table 5 – Protected Species - Ecological Constraints and Recommended Actions

Ecological Constraint/ Receptor	Biological Records Within 2km	Value of Supporting Feature	Impact without Appropriate Mitigation in Place	Recommended Actions (Avoidance/mitigation/compensation Measures and Recommendations for Further Works)	Timing Restrictions
Bats: Roosting – Bridge structure A and B, and T1	Yes	Olympian Way, Bridge structure "A" and Wembley Park Drive Bridge structure "B" are considered to have 'Low' bat roost potential on the assumption that features could be present where access was not possible.	Site to district significance if bats were confirmed at a later stage.	**Avoidance** measures should be designed into the scheme to avoid negative impact. This should include**:** • Retention and protection of the trees and bridges with roost potential (Bridge structure A and B, and T1). This should include an appropriate buffer to avoid impacts from vibration and noise during construction; and • A sensitive lighting scheme should be designed in coordination between a qualified lighting engineer and a suitably qualified Ecologist, according to current best practice guidelines include avoidance of lighting overspill onto the Wealding Brook, bridges and trees within this area. This should ensure that potential roosting and connective commuting habitat (either retained or created within the development) remains as unlit as possible to allow continued and future use by bats. A full PRA (likely by boat) will be required on the Bridge structures in order to assess their suitability to bats. This is only required if avoidance measures are not possible and the bridges are to be impacted by construction works or increased lighting. No further surveys are required for T1 'Low' BRP tree to inform a planning application, however the tree should be checked for bat roost potential prior to removal.	N/A
Bats: Foraging- Hedgerows, introduced shrub and scattered trees	Yes	The foraging habitat on site is considered to be of low value. Northern vegetation offers limited foraging and Wealdstone Brook offers suitable commuting routes for bats, potentially of up to district scale.	Site to district significance.	**Avoidance measures**: A sensitive lighting scheme should be designed between a qualified lighting engineer and a suitably qualified Ecologist, according to current best practice guidelines (ref. **R.15**) to ensure that retained foraging habitat along the northern parcel of land and Wealdstone Brook remains as unlit as possible to allow continued and future use by bats. If the above avoidance measures cannot be implemented at the planning application stage then bat foraging surveys will be required to establish an ecological baseline prior to the planning determination. This should comprise one foraging survey per season (Spring, Summer and Autumn).	N/A One survey visit per season (Spring –April/May, Summer- June/July/August, Autumn- September/October).
Nesting Birds – Scattered trees, hedgerow and introduced shrub.	Yes	Habitats offer value to breeding birds for common passerine birds and are considered important on a site scale.	Site scale	To ensure that no offences occur under the WCA, it is recommended that any vegetation clearance work is undertaken outside of the bird nesting season. If it is not possible to undertake clearance works outside of the breeding bird season, a suitably qualified ecologist should be employed to determine if nesting birds are using the site prior to works commencing, to avoid negative impact on protected species. Any active nests that are found would need to be provided with a minimum of a 10m buffer which would have to be left until the young had fledged, (typically up to four weeks from eggs being laid for the garden and woodland species likely to be present). Clearance works within the area can recommence only once the nest is no longer in use.	Clearance during September to February only unless supervised by an Ecologist.

8. GENERAL ENHANCEMENTS AND OPPORTUNITIES

The following general enhancements have been recommended to be included within the final development Scheme:

- Planting of native plant species beneficial to wildlife should be incorporated into the final design. This will provide additional habitat for invertebrates, birds and bats.
- The final development plan should incorporate bat, along with bird boxes, or a "bird friendly eves design" into the scheme. This will provide additional roosting and nesting habitats for bats and birds post-development.
- Log piles should be placed along the northern boundary, enhancing the habitats onsite for invertebrates post-development.
- To help achieve Biodiversity Net Gain on the site, areas of natural habitat would need to be included within the scheme. Metric calculations will likely be a requirement of planning, in order to show that net gain can be achieved.

Examples of potential enhancement features are included as Appendix 7. Example plant lists are included as Appendix 8.

9. CONCLUSIONS

The proposed development will not adversely affect statutory or non- statutory designated nature conservation sites.

None of the habitats that occur within the survey area were considered to have high ecological importance on an international, national, regional or county scale. The habitats onsite are of site to district significance only.

The findings of the extended Phase 1 Habitat Survey confirm that the habitats onsite have the potential to support foraging and roosting bats as well as nesting birds. The recommendations within Section 7 of this report should be adhered, to reduce the impact on protected species.

If avoidance measures are not possible, additional surveys for roosting and foraging bats will be required to confirm baseline use of the site by protected species. If present, a detailed mitigation strategy will be required to be provided to the Local Planning Authority prior to the determination of a planning application. Recommendations for mitigation should be in-line with CIEEM guidance (ref.**R.13**) for ecological impact assessment.

To help achieve Biodiversity Net Gain on the site, areas of natural habitat would need to be included within the scheme. Metric calculations will likely be a requirement of planning, in order to show that net gain can be achieved.

Opportunities exist for the provision of ecological enhancements in the form of integrated bat/bird boxes, a "bird friendly eves design", log piles and the incorporation of locally-sourced native plant species, or those of known wildlife benefit, into the landscape strategy.

APPENDICES

Appendix 1 – Report Limitations and Conditions

General Limitations and Exceptions

This report was prepared solely for our Client for the stated purposes only and is not intended to be relied on by any other party or for any other use. No extended duty of care to any third party is implied or offered.

Geosphere Environmental Ltd does not purport to provide specialist legal advice.

The Executive Summary, Conclusions and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon until considered in the context of the whole report.

Interpretations and recommendations contained within the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based upon current legislation in force at that time.

Ecology Limitations and Exceptions

Any limitations associated with the report will be stated. The consequences of any limitations, findings and/or recommendations in the report are made clear in line with CIEEM (2013) 'Guidelines for Preliminary Ecological Appraisal' (GPEA) and BSI (2013) BS 42020:2013 Biodiversity – 'Code of practice for planning and development'.

This report is prepared and written in the context of the proposals stated in the introduction to this report and should not be used in a differing context.

The wildlife and habitats present on any site are subject to change over time. Surveys of this kind can have limited validity, with the possibility of behaviour patterns and territory boundaries varying over time, due to the dynamics of adjacent populations.

New information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore, with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to us for re-assessment and, if necessary, re-appraisal.

It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment.

The scoping survey does not assess the presence or absence of a species, but is used to assess the potential for habitat to support them. Additional surveys may be recommended if, on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.

This survey does not constitute an invasive species survey and should not be treated as such.

Owing to seasonal variances and prevailing weather, conditions may sometimes be sub-optimal for surveying and this may delay or disrupt planned survey programmes. If applicable, full details are given in the report.

Geosphere Environmental Ltd may not be aware of information that could be held by other organisations or individuals, and it is always possible for features of nature conservation interest to be unrecorded during surveys.

Scientific survey data will be shared with local biological records centre in accordance with the CIEEM professional code of conduct.

Appendix 2 – References

R.1. Ministry of Housing, Communities and Local Government (MHCLG) (2021) National Planning Policy Framework (NPPF).

R.2. ODPM (2005) Government Circular: Biodiversity and Geological Conservation – statutory obligations and their impact within the planning system.

R.3. CIEEM (2013) Guidelines for Preliminary Ecological Appraisal (GPEA).

R.4. BSI (2013) BS 42020:2013 Biodiversity – Code of practice for planning and development. BSI Standards Limited 2013.

R.5. Stace, C. A. (2010). New Flora of the British Isles (third edition), Cambridge University Press.

R.6. Magic (2021) Site Check Report (accessed online 01-11-21) Website: www.magic.gov.uk.

R.7. JNCC, (2010). 'Handbook for Phase I Habitat Survey: A technique for environmental audit' (reprint). Joint Nature Conservation Committee, Peterborough.

R.8. Goldsmith, B. (1991). Monitoring for Conservation and Ecology, Chapman & Hall.

R.9. Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus). Herpetological Journal 10 (4), 143-155.

R.10. BCT (2016). 'Bat Surveys – Good Practice Guidelines' Bat Conservation Trust, London, 3rd edition.

R.11. JNCC (2004). 'Bat Workers Manual' 3rd edition. Joint Nature Conservation Committee, Peterborough.

R.12. English Nature (2004) Bat mitigation guidelines.

R.13. CIEEM, (2018). Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland

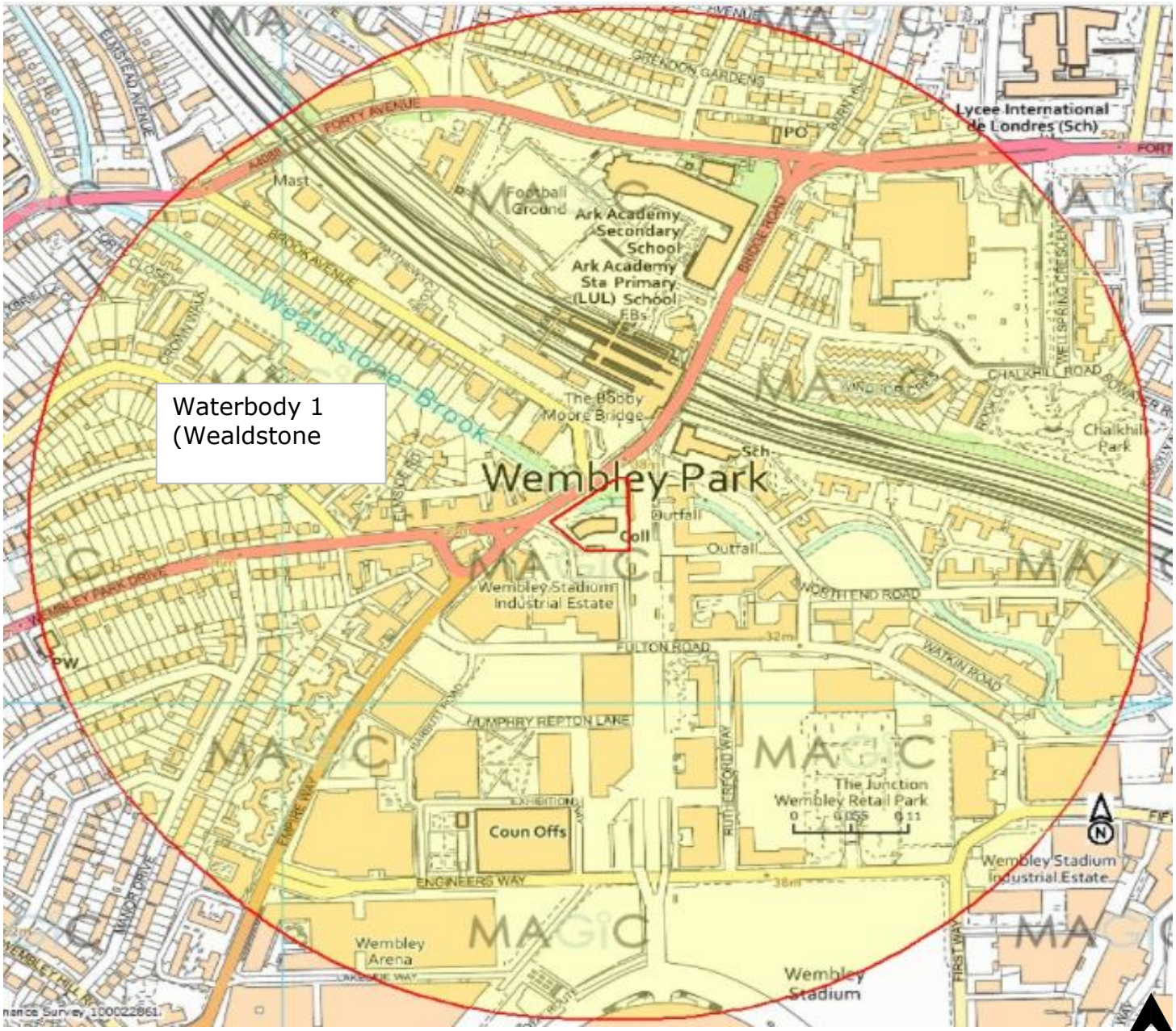
R.14. BS 5837 (2012), 'Trees in Relation to Design, Demolition and Construction'.

R.15. Institution of Lighting Professionals (2018) Bats and artificial lighting in the UK, Bats and the Built Environment series – Guidance Note 08/18

Appendix 3 – Drawings

Pond Location Plan – Drawing ref. 5935,EC/001/Rev0

Phase 1 Habitat Survey Plan – Drawing ref. 5935,EC/002/Rev0



GEOSPHERE ENVIRONMENTAL

LEGEND

Site boundary

500m buffer

PROJECT

Wembley Campus, Stadium, Wembley Park, Wembley, HA9 0WS

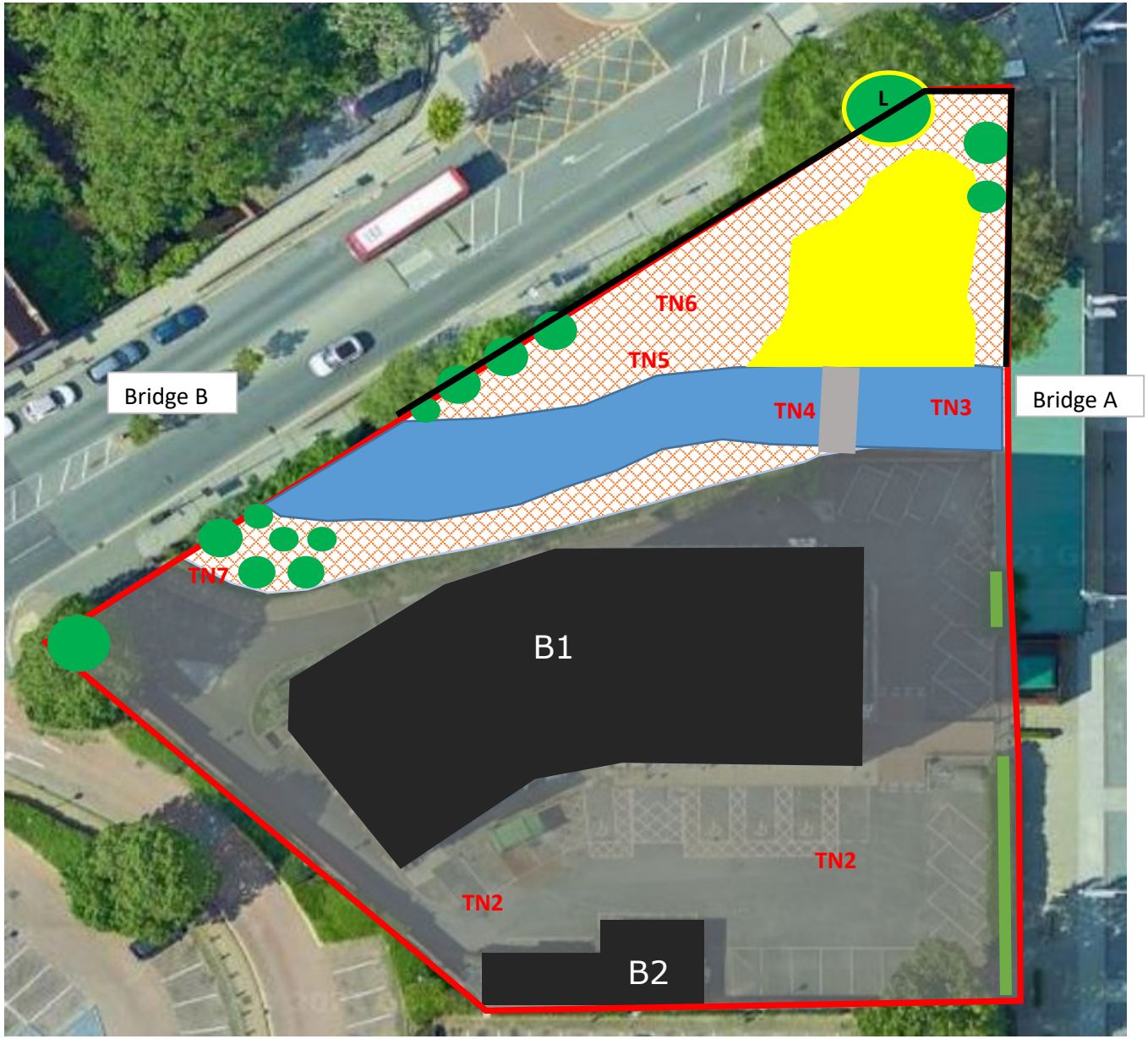
TITLE

Ponds/Waterbodies within 500m buffer

DRAWING NUMBER

5935,EC/001/Rev0

SCALE	DATE
NTS	29/10/2021
DRAWN BY	**CHECKED BY**
RH	RF



GEOSPHERE ENVIRONMENTAL

LEGEND

- Site boundary
- Hardstanding
- Buildings
- Waterbody (Wealdstone Brook)
- Species poor hedgerow
- Amenity grass
- Introduced shrub
- Scattered Trees
- TN1 Target Note 1
- L Tree with 'Low' BRP
- Wall

PROJECT

Wembley Campus, Stadium, Wembley Park, Wembley, HA9 0WS

TITLE

Phase 1 Habitat Plan

DRAWING NUMBER

5935,EC/002/Rev0

SCALE	DATE
NTS	29/10/2021
DRAWN BY	**CHECKED BY**
RH	RF

N

Appendix 4 – Species-Specific Legislation

Badger

The Protection of Badgers Act 1992 exists for welfare reasons, to protect badgers from cruelty. Under the act it is a criminal offence to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so, or to intentionally or recklessly interfere with a sett.

Bats

All bat species are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010. 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.

Great Crested Newts

Great Crested Newts are protected under the Wildlife and Countryside Act 1981 (as amended) Section 5 and the Conservation of Habitats and Species Regulations 2010. It is illegal to intentionally or deliberately kill, injure or capture Great Crested Newts or intentionally, deliberately or recklessly damage or destroy their breeding and resting places or obstruct access to their place of shelter or protection.

Hazel Dormouse

Hazel Dormice are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5 and the Conservation of Habitats and Species Regulations 2010. It is illegal to intentionally or deliberately kill, injure or capture a Dormouse or intentionally, deliberately or recklessly disturb a Dormouse, or damage its breeding or resting place or obstruct its place of shelter or protection.

Otters and Water Voles

Otters are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5 and the Conservation of Habitats and Species Regulations 2010. It is illegal to take, injure, kill or sell an otter, it is also an offence to damage, destroy or obstruct access to a resting place or disturb or harm an Otter at any time.

Water Voles are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5. It is illegal to deliberately kill, injure, capture or disturb them or to destroy, damage or obstruct access to any places used for shelter or protection

White-clawed Crayfish

White-clawed Crayfish (*Austropotamobius pallipes*) are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5, Sections 9(1) & 9 (5). It is an offence to intentionally take White-clawed Crayfish from the wild or to sell them. It is also a qualifying Annex II species for some Special Areas of Conservation under the Habitats Directive.

Birds

Wild birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is illegal to take or harm them, their nests (whilst in use or being built) or their eggs.

Additionally, for some species listed under Schedule 1 of the Act, 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.

Reptiles

Common reptiles include Slow-worm, Adder, Grass Snake and Common Lizard. These are protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5, Sections 9 (1) & 9 (5) only. It is illegal to kill or injure them.

It is not illegal to capture, disturb or to damage their habitats. However, the reptiles themselves are protected so any works to damage their habitat could risk causing harm to reptiles and hence could be illegal.

Rare reptiles which include Sand Lizard and Smooth Snake are restricted to a few locations in Britain and are fully protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 5, Section 9 and the Conservation of Habitats and Species Regulations 2010. It is illegal to kill, injure or intentionally disturb them whilst occupying a 'place used for shelter or protection' and destruction of these places.

Appendix 5 – Desk Study Data

MAGIC SAC and Ramsar 5km Buffer Map

Legend

- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

0 1.5 3
km

Projection = OSGB36
xmin = 497100
ymin = 175300
xmax = 540700
ymax = 197300

Site Check Report Report generated on Mon Nov 01 2021
You selected the location: Centroid Grid Ref: TQ19288620
The following features have been found in your search area:

Ramsar Sites (England) - points
No Features found

Ramsar Sites (England)
No Features found

Proposed Ramsar Sites (England)
No Features found

Special Areas of Conservation (England)
No Features found

Possible Special Areas of Conservation (England) - points
No Features found

Possible Special Areas of Conservation (England)
No Features found

Special Protection Areas (England)
No Features found

Potential Special Protection Areas (England)
No Features found

Statutory Sites within 2km radius map

Legend

- Areas of Outstanding Natural Beauty (England)
- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

Projection = OSGB36
xmin = 511100
ymin = 182100
xmax = 527400
ymax = 190300

0 0.45 0.9
km

Map produced by MAGIC on 28 October, 2021.

Site Check Report Report generated on Thu Oct 28 2021
You selected the location: Centroid Grid Ref: TQ19288621
The following features have been found in your search area:

Local Nature Reserves (England)

Reference	1123051
Name	BRENT RESERVOIR / WELSH HARP
Hectares	97.31
Hyperlink	https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1123051

Reference	1008912
Name	FRYENT COUNTRY PARK
Hectares	106.97
Hyperlink	https://designatedsites.naturalengland.org.uk/SiteLNRDetail.aspx?SiteCode=L1008912

Sites of Special Scientific Interest (England)

Name	Brent Reservoir SSSI
Reference	1000119
Natural England Contact	Conservation Delivery Team
Natural England Phone Number	0845 600 3078
Hectares	69.37
Citation	1003322
Hyperlink	http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1003322

Areas of Outstanding Natural Beauty (England)
No Features found

National Nature Reserves (England)
No Features found

Ramsar Sites (England)
No Features found

Proposed Ramsar Sites (England)
No Features found

Special Areas of Conservation (England)
No Features found

Possible Special Areas of Conservation (England)
No Features found

Special Protection Areas (England)
No Features found

Potential Special Protection Areas (England)
No Features found

Appendix 6 – Target Notes

Target Note 1

Target Note 2

Target Note 3

Target Note 4

GEOSPHERE ENVIRONMENTAL

NOTE

Target Note 1
Hardstanding and Building (B1) surveyor facing east

Target Note 2
Hardstanding and Building (B1 right) (B2 left) surveyor facing west

Target Note 3
Brook which intersects the site (surveyor facing north east)

Target Note 4
Bridge which links northern and southern boundary of site (surveyor facing north)

PROJECT

WEMBLEY CAMPUS, STADIUM, WEMBLEY PARK, WEMBLEY, HA9 0WS

PROJECT NUMBER

5935,EC

TITLE

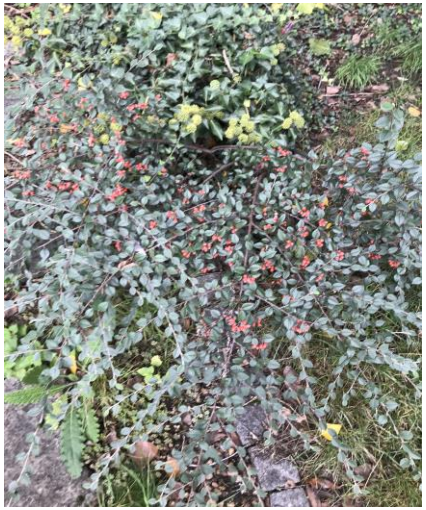
Ecological Target Notes Relating to Extended Phase 1 Habitat Survey

DATE

04/11/2021

Target Note 5

Target Note 6



Target Note 7

Target Note 8

GEOSPHERE ENVIRONMENTAL

NOTE

Target Note 5
Northern boundary of site with introduced shrubs

Target Note 6
Hollyberry Cotoneaster (*Cotoneaster bullatus*) within introduced shrubs north of site

Target Note 7
Butterfly-bush (*Buddleja davidii*) along north western boundary

Target Note 8
Scattered trees along northern boundary

PROJECT
WEMBLEY CAMPUS, STADIUM, WEMBLEY PARK, WEMBLEY, HA9 0WS

PROJECT NUMBER
5935,EC

TITLE
Ecological Target Notes Relating to Extended Phase 1 Habitat Survey

DATE
04/11/2021

Appendix 7 – Example Enhanced Features

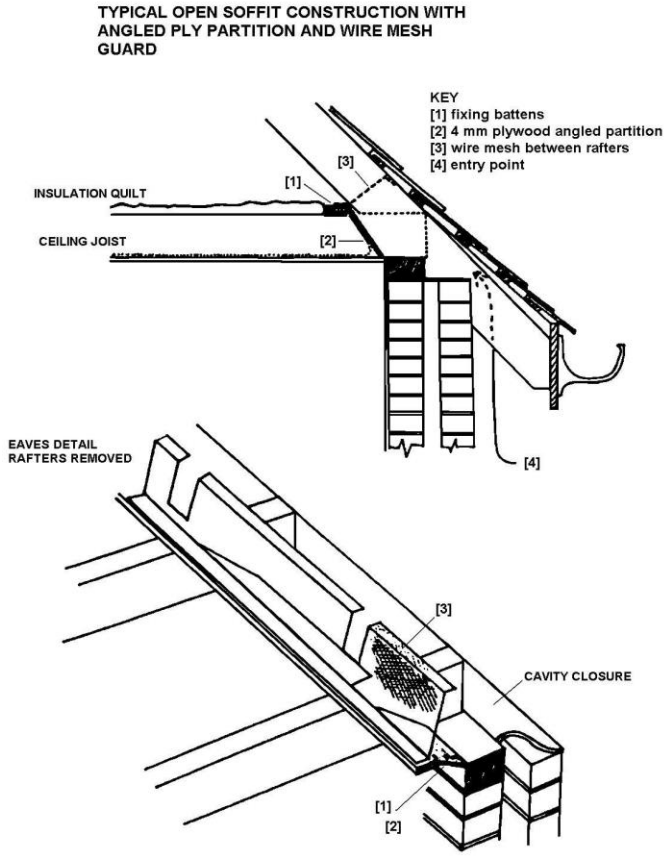
BIRD FRIENDLY EAVE DESIGN

Suitably designed eaves provide nesting habitat for House Sparrow, Starling, and Swifts, and offer a long term and cost-effective alternative to nest boxes. Eave nesting sites should be situated on north facing walls to provide a nesting site away from direct sunlight.

GEOSPHERE ENVIRONMENTAL

Open Soffit Construction

In open soffit construction, nests are usually just inside the roof, confined to the closed cavity or solid brickwork ledge. An angled piece of plywood in between the joists resting on the ceiling plasterboard prevents birds from getting further into the roof void. The insulation quilt ends at the plywood partition, thus preventing obstruction of the eaves for ventilation while still allowing access for birds. If wire mesh is fitted between the joists and the partition, the birds cannot get any further into the roof space.



REFERENCE

Images and dimensions from RSPB. Further information can be acquired from the swift conservation trust at: http://www.swift-conservation.org/

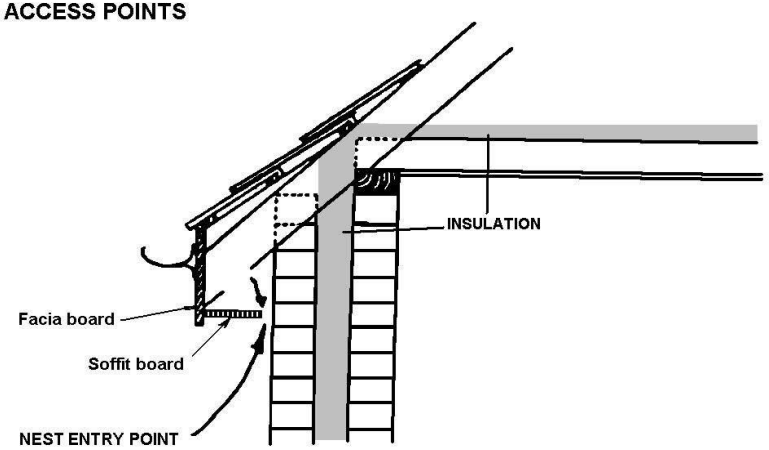
TITLE
Bird Friendly Eave Design

DATE
04/11/2021

Traditional Boxed Eaves

If the proposed design includes Traditional Boxed eaves, the soffit board should have a hole or gap adjacent to the wall to allow access into the eave space. The holes or gap needs to be a specific dimension to attract Starling, House Sparrows and Swifts to the eave space. A hole or gap of 35mm diameter is required by house sparrows, 45mm for starlings and a "letter box" slot or gap of at least 65mm x 25-35mm for swifts. In order to provide a variety of habitats it is recommended to include a variety of dimensioned holes or gaps within the development. A gap would provide an entrance along the entire length of the eaves, however if gaps are not appropriate, holes should be placed at less than 1m intervals.

TRADITIONAL BOXED EAVES DETAIL AND ACCESS POINTS



GEOSPHERE ENVIRONMENTAL

REFERENCE

Images and dimensions from RSPB. Further information can be acquired from the swift conservation trust at: http://www.swift-conservation.org/

TITLE
Bird Friendly Eave Design

DATE
04/11/2021

EXAMPLE BAT BRICKS AND BOXES

GEOSPHERE ENVIRONMENTAL

Integrated Bat Box: Ibstock Enclosed Bat Box 'B'

Large 215 x 290mm

Large Bespoke
215 x 290 mm

Small Red
215 x 215 mm

SOURCE
https://www.nhbs.com/ibstock-enclosed-bat-box-b

The Ibstock Enclosed Bat Box 'B' is designed for integration into the wall of new buildings or conservation projects and is intended to provide summer roosting space for pipistrelles specifically. It provides a discrete home for bats, with several roosting chambers to provide zones of differing temperatures within the box. The bats are contained within the box itself and the entrance at the bottom allows droppings to fall out, meaning that the box is maintenance free.

Integrated Bat Tube: Cambrian Conservation B10 Bat Tube

- Replicates crevices found within masonry and stone walls
- Sloping floor prevents accumulation of droppings
- Confined roosting space is perfect for crevice dwelling bat species
- Rough cast interior wall provides easy grip onto crevice surface

- BT10 Bat Tube conforms to the dimensions of a standard UK building block.
- Professional grade casting ensures no breaching of the wall cavity and related damp problems
- Suitable for use with standard cavity wall insulation
- Textured front provides excellent surface for render application
- Front surface is designed for discreet render concealment leaving only the access point visible
- Contains no biodegradable parts in the bat roost chamber, thus eliminating long term problems from wood rot
- Long life, maintenance free use meets environmental regulations and provides biodiversity enhancement

SOURCE
https://www.cambrianconservation.com/

TITLE
Example Bat Bricks and Boxes

DATE
04/11/2021

External Bat Box: Schwegler 1FQ bat box

The structure of the 1FQ has been designed with bat behaviour in mind. For example, the outside of the front panel has been roughened to enable the animals to land and hang onto it securely. Access is via a step-like recess which enables even young and inexperienced bats, to safely access the box. The inside of the box has rough pieces of wood incorporated which provide good insulation and are also used by the bats as perches. The internal layout provides three different areas from which bats can hang and which offer different levels of light and temperature. There are also non-slip areas, gaps ranging from 1.5 to 3.5cm in width and various places for individuals to hide.

Installation of the 1FQ is achieved using the four screws and plugs provided. The back panel is initially screwed onto the wall (using four screws) and then the front panel is attached to this. It can easily be attached to most types of external brick, timber or concrete and can also be placed inside a roof space. (If fixing to timber then the gaps between the wall and the box should be sealed with silicone to prevent moisture being trapped here). The box should be positioned a minimum of three metres above the ground and where there is a clear flight path for bats entering and leaving. If desired, the front panel can be painted to match your building using an air-permeable paint.

SOURCE
http://www.nhbs.com/title/160551

External Bat Box: 1FF Schwegler Bat Box with Built-in Wooden Rear Panel

The Schwegler 1FF bat box is spacious enough for bats to use as a summer roost or nursery site and is open at the bottom, allowing droppings to fall out so it does not need cleaning. The 1FF is, therefore, especially suitable for hanging in inaccessible places such as high in trees, or on steep slopes and house walls.

The 1FF is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects.

The inner dimensions of the 1FF have a reducing width making it ideal for bat species which inhabit crevices such as pipistrelle and noctule bats. For conservation projects and studies, the entire front of the box can be easily swung open for inspection purposes.

The 1FF bat box can be sited in trees or on buildings and is best positioned at a height of between 4 to 6 metres.

SOURCE
https://www.nhbs.com/1ff-schwegler-bat-box-with-built-in-wooden-rear-panel

TITLE
Example Bat Bricks & Boxes

DATE
04/11/2021

GEOSPHERE ENVIRONMENTAL

External Bat Box: 2F Schwegler Bat Box with Double Front Panel

This box has a front panel and a second inner wooden panel fitted to it to create a cavity wall. This provides ideal quarters for bats that inhabit crevices, such as Nathusius' Pipistrelle (*Pipistrellus nathusii*), Daubenton`s Bat (*Myotis daubetonii*) and the Common Pipistrelle (*Pipistrellus pipistrellus*).

It has been designed as a summer roosting space for bats and has a simple entrance hole at the front. The Schwegler 2F double front panel is removable and can be converted in to a bird nest box using a replacement 1B front panel if there is no evidence of bat activity after a couple of years. The 2F Double Front Panel is manufactured from long-lasting Woodcrete, which is a blend of wood, concrete and clay which will not rot, leak, crack or warp, and will last for at least 20 - 25 years, making it suitable for long-term mitigation projects. Woodcrete is breathable and maintains a stable temperature inside the box and the 2F is painted black to absorb warmth. It also provides a good rough surface for bats to cling on to and climb.

The 2F Double Front Panel bat box can be sited in trees or on buildings and is best positioned at a height of between 3 to 6 metres.

SOURCE
https://www.nhbs.com/2f-schwegler-bat-box-with-double-front-panel

Please note that once bats have inhabited a roost (integrated or external box) they may only be disturbed by licensed bat workers.

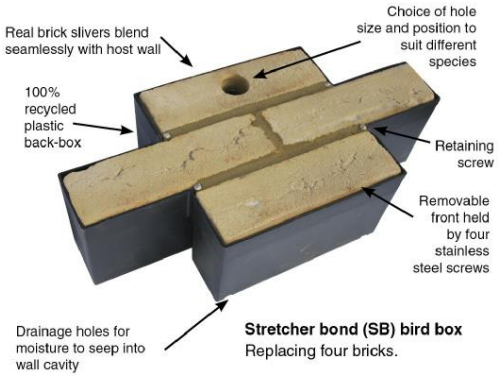
TITLE
Example Bat Bricks and Boxes

DATE
04/11/2021

EXAMPLE BIRD BRICKS & BOXES

GEOSPHERE ENVIRONMENTAL

Integrated Bird Brick House: The Standard Box



This Standard nesting box is suitable for House Sparrows and members of the Tit family. The single entrance hole allows the entire internal area to be available for nesting and roosting. The aperture size will vary according to the target species. For example, a 48 mm entrance hole can be produced to accommodate Starlings. The ideal internal depth is 140 mm, however if cavity width is limited, boxes can be manufactured with a reduced depth (minimum 100 mm).

SOURCE
http://www.birdbrickhouses.co.uk/brick-nesting-boxes/nesting-boxes/

Integrated Bird Brick House: Sparrow terrace box

This has the same external dimensions as the standard box but has two entrance holes and two separate compartments – ideal for the sociable nature of house sparrows. The terrace box is also suitable for Redstarts, Black Redstarts and Wagtails.

SOURCE
http://www.birdbrickhouses.co.uk/brick-nesting-boxes/nesting-boxes/

Integrated Bird Brick House: Swift box

This box has a crescent shaped hole to one side of the box, allowing swifts access but restricting use by starlings. Inside, a rough floor makes it easier for the birds to move around. The centre of the floor has a raised nest cup to assist the birds' nest building. The ideal internal depth of a swift box is 140 mm, however if cavity width is limited, boxes can be manufactured with a reduced depth (minimum 100 mm).

SOURCE
http://www.birdbrickhouses.co.uk/brick-nesting-boxes/nesting-boxes/

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Example Bird Bricks and Boxes

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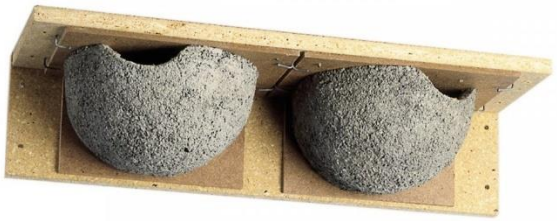
External Bird House: 9A Schwegler House Martin Nest



These boxes should be installed under eaves on the external walls of buildings. Install on the sheltered side (north facing) of the building at a minimum height of 2m above the ground.

These nests can be used for years without cleaning. However, if possible it is recommended to inspect them frequently and to clean them when necessary. These Woodcrete nest boxes are famous for their durability - lasting for at least 20-25 years.

SOURCE
https://www.nhbs.com/9a-schwegler-house-martin-nest

External Bird House: 1SP Schwegler Sparrow Terrace

The Sparrow Terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population of 6 million pairs is half what it was in 1980 and this is thought to be due to habitat destruction and lack of suitable nesting spaces. Sparrows are social birds and like to nest in company. This terrace provides ideal nesting opportunities for three families and will last many decades. It may also occasionally attract tits, redstarts and spotted flycatchers.

The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Cleaning is advisable but not necessary.

SOURCE
https://www.nhbs.com/1sp-schwegler-sparrow-terrace

External Bird House: WoodStone Swift Nest Box

The FSC certified WoodStone Swift Nest Box is constructed entirely out of WoodStone meaning it is long lasting and won't rot away like a traditional wooden nest box.

Swift numbers are declining, in part because of the loss of nesting sites. Installing a swift box is a great way to help these birds and to ensure their continued presence in our surroundings. There is an opening at the back of the box for easy cleaning with the nest entrance on the underside of the box.

This type of entrance is preferred by swifts but discourages house sparrows and starlings from occupying the box. This box should be installed at least five metres above the ground, ensuring that there is unobstructed access for birds entering and leaving. If possible, boxes should be sited under the shelter of eaves or overhanging roofs.

SOURCE
https://www.nhbs.com/woodstone-swift-nest-box

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Example Bird Bricks and Boxes

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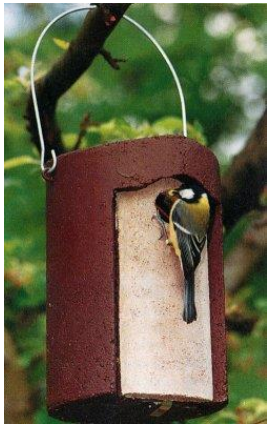
GEOSPHERE ENVIRONMENTAL

External Bird House: 1B Schwegler Bird Nest Box (General)



These Woodcrete nest boxes last for at least 20-25 years. Woodcrete is a breathable blend of wood, concrete and clay which will not rot, leak, crack or warp, whilst preventing condensation and maintaining more constant temperatures inside than wooden boxes.

Schwegler bird boxes are backed by conservation organisations, government agencies and forestry experts and experiments have shown that the highest density if bird populations (i.e. breeding pairs per hectare) is achieved with Schwegler nest boxes.

They are carefully designed to provide a stable environment and to mimic natural nest and roost sites with internal brood chamber dimensions that are similar to natural woodpecker cavities. Schwegler have a patented method of installation on trees that prevents the tree trunk from growing over the hanger from which the box is suspended.

SOURCE
https://www.nhbs.com/1b-schwegler-nest-box

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Example Bird Bricks and Boxes

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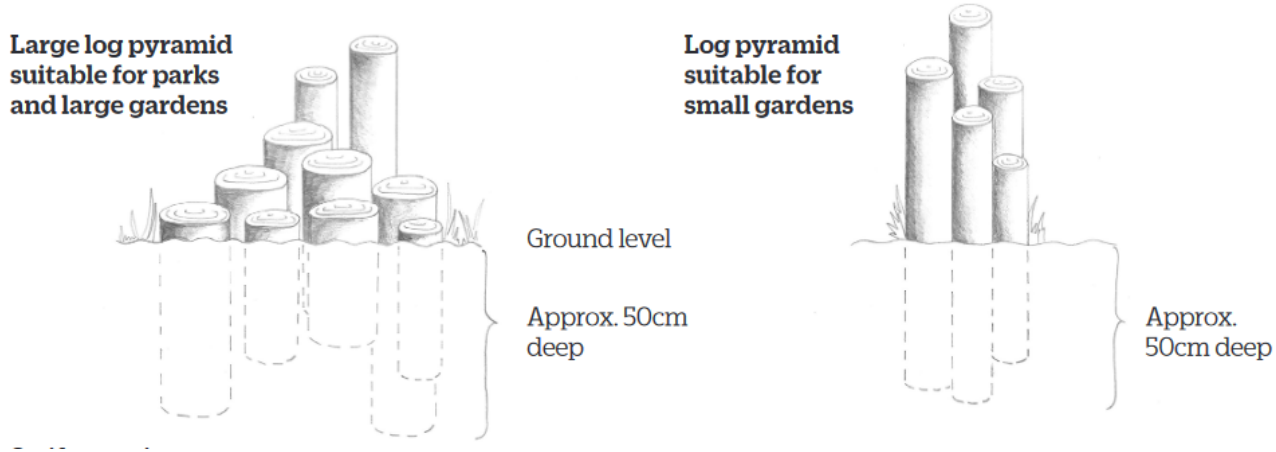
LOG PYRAMID AND LOG PILE GUIDANCE

1. LOG PYRAMID

Establishing the Log Pyramid

Where space is limited and log piles are deemed unsuitable, log pyramids can be created as shown below.

- Drill holes into some of the logs. Drill holes to various depths.
- Dig holes onto the ground ranging from 48cm deep to 60cm deep to give the pyramid shape. The final construction should be as shown below:



SOURCE
Log pyramid drawing copyright of https://ptes.org/wp-content/uploads/2016/11/Build-a-log-pile-for-stag-beetles.pdf

2. STUMPERY

Taken and adapted from Dengarden: How to Make a DIY Stumpery in Your Garden - Dengarden - Home and Garden)

Stumpery creation involves replicating a forest floor using a mix of different sized wood stumps, logs and even driftwood. They are similar to a rockery, but made with parts of dead trees such as stumps and logs.

Dig a hole in the ground. 'Plant' your logs in it, orientated vertically, so that half the log is in the hole. Pack soil in the gaps of the hole to bury the bases of the logs. This will support species like Stag beetle that like damp submerged dead wood. Interplant with ferns and other shade loving plants and bulbs. Stumperies are strongly recommended if you live in Stag beetle hotspots such as the New Forest, Home Counties and East Suffolk

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Log Pyramid and Log Pile Guidance

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3. LOG PILES

Resourcing Logs

Any logs created during tree works on the site should be collected and added to the piles, or used to create additional piles. If there are not enough logs created during vegetation clearance, additional logs will need to be imported to the site. Logs should be locally sourced, "green" logs (untreated or dried).

Which Wood to Use

Logs at least 100mm diameter, and 1m long, with the bark still attached provide the best wood. Hard wood trees such as ash, oak and beech are particularly good. Birch logs can look particularly attractive.

Be careful of freshly cut willow and poplar logs, as these can easily re-sprout if left lying on the ground.

Establishing the Log Pile

Leaving woody cuttings from trees, shrubs and herbaceous plants in piles within a shrub bed is an ideal way of attracting invertebrate to site. The damp conditions behind peeling bark are very inviting for woodlice, spiders and beetles, while butterflies and ladybirds take up residence in the drier parts over winter. Log piles should be created by piling large logs into approximately 2m x 1m x 1m piles. Logs should be placed in a shallow pit, approximately 150mm deep. The soil/turf removed to create the pit, should be placed on top of the logs to provide a light cover of soil/turf.

It is best to not cut the wood into small pieces. Leave it in direct contact with the ground, in compact piles to maintain humidity. Larger diameter pieces are of most value, but even small twigs and branches should not be discounted.

GEOSPHERE ENVIRONMENTAL

REFERENCE
Log pyramid drawing copyright of https://ptes.org/wp-content/uploads/2016/11/Build-a-log-pile-for-stag-beetles.pdf

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Log Pyramid and Log Pile Guidance

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Appendix 8 – Example Plant Lists

GENERAL PLANTS CONSIDERED BENEFICIAL TO WILDLIFE

The lists of plants below are taken from current Natural England guidance (ref. **1**), a web-based data based managed on behalf of the RHS and the Wildlife Trusts (ref. **2**) and professional judgement. When buying native plants, ensure they are from a reputable source, as many wildflowers are illegally taken from the wild.

Large Trees

Common Name	Latin Name	Common Name	Latin Name
Beech	*Fagus sylvatica*	Pedunculate Oak	*Quercus robur*
Wild Cherry	*Prunus avium*	White Willow	*Salix alba*
Bird Cherry	*Prunus padus*	Small-leaved Lime	*Tilia cordata*
Sessile Oak	*Quercus petraea*		

Medium/Small Trees

Common Name	Latin Name	Common Name	Latin Name
Field Maple	*Acer campestre*	Apples	*Malus* spp.
Alder	*Alnus glutinosa*	Pears	*Pyrus* spp.
Silver Birch	*Betula pendula*	Rowan	*Sorbus aucuparia*
Holly	*Ilex aquifolium*		

Other Shrubs for Nectar, Pollen or Fruits

Common Name	Latin Name	Common Name	Latin Name
Serviceberry	*Amelanchier canadensis*	Himalayan Honeysuckle	*Leycesteria formosa*
June Berry	*Amelanchier lamarckii*	Mahonia	*Mohonia* spp.
Californian lilac	*Ceanothus* spp.	Mock Orange	*Philadelphus* spp.
Japanese quince	*Chaenomeles japonica*	Firethorn	Pyracantha spp
Creeping Cotoneaster	*Cotoneaster frigidus*	Lilac	*Syringa vulgaris*
Daphne	*Daphne mezereum*	Laurustinus	*Viburnum tinus*
Hebes	*Hebe* spp.	Bodant Viburnum	*Viburnum x bodnantense*
Lavenders	*Lavandula* spp.		

Drought-Tolerant Herbaceous Plants

Common Name	Latin Name	Common Name	Latin Name
Onion	*Allium christophii*	Giant dead-nettle	*Lamium orvala*
False dittany	*Ballota acetabulosa*	Lavender	*Lavandula augustifolia*
Calamint	*Calamintha nepeta*	Myrtle	*Myrtus communis*
Giant scabious	*Cephalaria gigantean*	Honey garlic	*Nectaroscordum siculum*
Honeywort	*Cerinthe major* and *C. purpurascens*	Golden drops	*Onosma* spp.
Sun-roses	*Cistus* spp.	Marjoram	*Origanum vulgare*
Large-flowered Tickseed	*Coreopsis grandiflora*	Jerusalem sage	*Phlomis russeliana*
Crocus	*Crocus tommasinianus*	Rosemary	*Rosmarinus officinalis*
Cardoon	*Cynara cardunculus*	Winter savoury	*Satureja montana*

GEOSPHERE ENVIRONMENTAL

REFERENCE

1. Natural England (2007). Plants for Wildlife-friendly Gardens: NE29.
2. RHS and the Wildlife Trusts (2015). Gardening with Wildlife in Mind. http://www.joyofplants.com/wildlife/.

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General Plants Considered Beneficial To Wildlife

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Teasel	*Dipsacus fullonum*	Chile black scabious	*Scabious atropurpurea*
Coneflower	*Echinacea purpurea*	Stonecrops	*Sedum acre, S. anglicum, S. forsterianum* and *S. album*
Giant Echium	*Echium pininana*	Lamb's lung/ears	*Stachys olympica* and *S. lanata*
Sea-hollies	*Eryngium* spp.	Thyme	*Thymus vulgaris*
Escallonia	*Escallonia* spp.	Crimson clover	*Trifolium incarnatum*
Hebe	*Hebe* sp.	Tulip	*Tulipa* sp.
Rock-roses	*Helianthemum* spp.		

GEOSPHERE ENVIRONMENTAL

Native Wildflowers for Borders

Common Name	Latin Name	Common Name	Latin Name
Yarrow	*Achillea millefolium*	Toadflax	*Linaria vulgaris*
Agrimony	*Agrimonia eupatoria*	Yellow loosestrife	*Lysimachia vulgaris*
Corncockle	*Agrostemma githago*	Common mallow	Malva sylvestris
Chives	*Allium schoenoprasum*	Marjoram	*Origanum vulgare*
Harebell	*Campanula rotundifolia*	Common poppy	*Papaver rhoeas*
Cornflower	*Centaurea cyanus*	Cowslip	*Primula veris*
Greater knapweed	*Centaurea scabiosa*	Primrose	*Primula vulgaris*
Chicory	*Chichorium intybus*	White campion	*Silene alba*
Foxglove	*Digitalis purpurea*	Red campion	*Silene dioica*
Teasel	*Dipsacus fullonum*	Goldenrod	*Solidago virgaurea*
Sea hollies	*Eryngium* spp.	Devil's-bit scabious	*Succisa pratensis*
Lady's bedstraw	*Galium verum*	Tansy	*Tanacetum vulgare*
Meadow crane's-bill	*Geranium pratense*	Dandelion	*Taraxacum officinale*
Herb-robert	*Geranium robertianum*	Wild thyme	*Thymus drucei*
Dame's-violet	*Hesperis matronalis*	Great mullein	*Verbascum thapsus*
Field Scabious	*Knautia arvensis*	Germander speedwell	*Veronica chamaedrys*
Oxeye daisy	*Leucanthemum vulgare*	Spiked speedwell	*Veronica spicata*

Cultivated Plants for Borders

Common Name	Latin Name	Common Name	Latin Name
Alliums	*Allium* spp.	California poppy	*Eschscholzia californica*
Hollyhock	*Althaea rosea*	Snowdrop	*Galanthus nivalis*
Yellow alyssum	*Alyssum saxatile*	Sunflowers	*Helianthus* spp.
Grecian windflower	*Anemone blanda*	Christmas rose	*Helleborus niger*
Angelica	*Angelica archangelica*	Lenten rose	*Helleborus orientalis*
Snapdragon	*Antirrhinum majus*	Candytuft	*Iberis sempervirens*
Alpine rock-cress	*Arabis alpina*	Poached-egg plant	*Limnanthes douglasii*
Michaelmas daisies	*Aster* spp.	Hybrids sweet alyssum	*Lobularia maritime*
Lilacbush	*Aubrieta deltoidea*	Honesty	*Lunaria rediviva* or *annua*
Borage	*Borago officinalis*	Sweet bergamot	*Monarda didyma*
Pot marigold	*Calendula offinialis*	Grape hyacinth	*Muscari botryoides*
Red valerian	*Centranthus ruber*	Forget-me-not	*Myosotis* spp.
Wallflower	*Cheiranthus cheiri*	Tobacco plant	*Nicotiana sylvestris*
Corn marigold	*Chrysanthemum segetum*	Evening primrose	*Oenothera biennis*

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Cosmos	*Cosmos bipinnatus*	Phlox	*Phlox paniculata*
Spring crocus	*Crocus chrysanthus*	Black-eyed Susan	*Rudbeckia fulgida*
Sweet William	*Dianthus barbatus*	Scabious	*Scabiosa* spp.
Purple coneflower	*Echinacea purpurea*	Ice plant	*Sedum spectabile*
Globe thistle	*Echinops ritro*	French marigold	*Tagetes* spp.
Winter aconite	*Eranthis hyemalis*	Mulleins	*Verbascum* spp.
Fleabane	*Erigeron* spp.		

Plants for Shady Areas

Common Name	Latin Name	Common Name	Latin Name
Bugle	*Ajuga reptans*	Bluebell	*Hyacinthoides non-scripta*
Lords and Ladies/ Cuckoopint	*Arum maculatum*	Yellow archangel	*Lamiastrum galeobdolon*
Lilly of the Valley	*Convallaria majalis*	Daffodils	*Narcissus pseudonarcissus*
Foxglove	Digitalis purpurea	Primrose	*Primula vulgaris*
Wood avens	*Geum urbanum*	Sweet Violet	*Viola odorata*

Plants for Wildflower Meadows/Intensive Green Roofs

Common Name	Latin Name	Common Name	Latin Name
Yarrow	*Achillea millefolium*	Poached-egg plant	*Limnanthes douglasii*
Corncockle	*Agrostemma githago*	Toadflaxes	*Linaria* spp.
Chives	*Allium schoenoprasum*	Flax	*Linum usitatissimum*
Yellow alyssum	*Alyssum saxatile*	Hybrids sweet alyssum	*Lobularia maritima*
Grecian windflower	*Anemone blanda*	Bird's-foot Trefoils	*Lotus* spp.
Snapdragon	*Antirrhinum majus*	Honesty	*Lunaria rediviva*
Alpine rock-cress	*Arabis alpina*	Yellow loosestrife	*Lysimachia vulgaris*
Michaelmas daisy	*Aster* spp.	Scentless Mayweed	*Matricaria recutita*
Red Orache	*Atriplex hortensis*	Black Medick	*Medicago lupulina*
Purpletop vervain	*Berbena bonariensis*	Forget-me-not	*Myosotis* spp.
Fingered Sedge	*Carex digitata*	Tobacco plant	*Nicotiana affinis*
Glaucous Sedge	*Carex flacca*	Love-in-a-mist	*Nigella damascena*
Cornflower	*Centaurea cyanus*	Oreganos	*Oreganum* spp.
Common Knapweed	*Centaurea nigra*	Common poppy	*Papaver rhoeas*
Greater knapweed	*Centaurea scabiosa*	Poppies	*Papaver* spp.
Red valerian	*Centranthus ruber*	Tunicflower	*Petrorhagia saxifraga*
Wallflower	*Erysimum cheiri*	Phlox	*Phlox paniculata*
Chicory	*Cichorium intybus*	Meadow-grasses	*Poa* sp.
Rock-roses	*Cistus* spp.	Cowslip	*Primula veris*
Larkspur	*Consolida* spp.	Yellow Rattle	*Rhinanthus minor*
Tickseed	*Coreopsis* spp.	Black-eyed Susan	*Rudbeckia hirta*
Cosmos	*Cosmos bipinnatus*	Common Sorrel	*Rumex acetosa*
Heath-grass	*Danthonia decumbens*	Sheep's Sorrel	*Rumex acetosella*
Teasel	*Dipsacus fullonum*	Ice plant	*Sedum spectabile*
Fleabane	*Erigeron* spp.	Stonecrops	*Sedum* spp.
Stork's-bills	*Erodium* spp.	White campion	*Silene alba*

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Wallflowers	*Erysimum* spp.	Red campion	*Silene dioica*
California poppy	*Eschscholzia californica*	Goldenrod	*Solidago virgaurea*
Spiky Fescue	*Festuca gautieri*	Devil's-bit scabious	*Succisa pratensis*
Lady's bedstraw	*Galium verum*	French marigold	*Tagetes* spp.
Dove's-foot Crane's-bill	*Geranium molle*	Tansy	*Tanacetum vulgare*
Meadow crane's-bill	*Geranium pratense*	Dandelion	*Taraxacum officinale*
Herb-robert	*Geranium robertianum*	Wild thyme	*Thymus drucei*
Heliotrope	*Heliotropium arborescens*	Red Clover	*Trifolium pratense*
Horseshoe Vetch	*Hippocrepis comosa*	Great mullein	*Verbascum thapsus*
Candytuft	*Iberis sempervirens*	Germander speedwell	*Veronica chamaedrys*
Field Scabious	*Knautia arvensis*	Spiked speedwell	*Veronica spicata*
Oxeye daisy	*Leucanthemum vulgare*		

Marginal Plants/Marshy Areas

Common Name	Latin Name	Common Name	Latin Name
Water plantain	*Alisma plantago-aquatica*	Water mint	*Menthe aquatica*
Marsh marigold	*Caltha palustris*	Bogbean	*Menyanthes trifoliate*
Cuckooflower	*Cardamine pratensis*	Water forget-me-not	*Myosotis scorpioides*
Lesser pond sedge	*Carex aucuparia*	Amphibious bistort	*Persicaria amphibia*
Water avens	*Geum rivale*	Water Plantain	*Alisma Plantago-aquatica*
Water violet	*Hottonia palustris*	Lesser spearwort	*Ranunculus flammula*
Rushes	*Juncus spp.*	Marsh woundwort	*Stachys palustris*
Ragged robin	*Lychnis flos-cuculi*	Brooklime	*Veronica beccabunga*
Creeping Jenny	*Lysimachia nummularia*		

Submerged Plants

Common Name	Latin Name	Common Name	Latin Name
Water starwort	*Callitriche*	Curled pondweed	*Potamogeton crispus*
Hornwort	*Ceratophyllum demersum*	Other pondweeds	*Potamogeton* spp.
Spiked water milfoil	*Myriophyllum spicatum*	Willow moss	*Fontinalis antipyretica*
Common water-crowfoot	*Ranunculus aquatilis*	Water-violet	*Hottonia palustris*

Floating Plants

Common Name	Latin Name	Common Name	Latin Name
Frogbit	*Hydrocharis morsus-ranae*	Broad-leaved pondweed	*Potamogeton natans*
Fringed water-lily	*Nymphoides peltata*	Water crowfoot	*Ranunculus aquatilis*
Amphibious bistort	*Persicaria amphibian*	Yellow waterlily	*Nuphar lutea*

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Ec Ecology.

Fr Flood Risk.

Ge Geotechnical.

En Environmental.

Kw Knotweed.

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APPENDIX B
PRELIMINARY ECOLOGICAL APPRAISAL AND EXTERNAL BAT SCOPING SURVEY