Union Park Block 4, Union Park, Land at Bulls Bridge Industrial Estate, Hayes, UB3 4QQ

Bird Hazard Management Plan

Version	Created By	Approved By	Date
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1. Introduction

1.1. Ecology Solutions was commissioned by Ark UP4 Limited in October 2024 to complete a Bird Hazard Management Plan for the site at Union Park, land at Bulls Bridge Industrial Estate, Hayes, UB3 4QQ (see Plan ECO1).

1.2. Ecology Solutions has conducted ecological survey work of the wider Union Park site in 2018 and 2020. This work was previously commissioned by Bruceshaw on behalf of Ark Estates 2 Limited and related to the redevelopment of Union Park and the construction of three data centre blocks, entitled UP1, UP2 and UP3. These blocks are currently under construction.

1.3. A further data centre block (Union Park Block 4; UP4) is now proposed to the west of the wider Union Park site. This block will adjoin to the permitted UP3 block and will include an accompanying energy centre with associated landscaping and infrastructure.

1.4. The site is approximately 1.26ha in size and situated within the London Borough of Hillingdon. There is an existing building on site, which has a total area of circa 3,500sqm of floorspace and was formerly occupied by Addison Lee for the repair, maintenance, and replacement of private hire vehicles. This building, along with the associated hardstanding, dominates the site. It is expected that this building will be demolished during consideration of the application. Small parcels of ephemeral habitat are located in the north and south of the site and a treeline is located in the southeast. Individual trees and ornamental shrub species are also present. Broadleaved woodland occupies a small area within the west of the site and extends southwards to the Grand Union Canal (see Plan ECO2).

1.5. The Great Western Main Line railway borders the north of the site and the wider Union Park construction site the east. The wider landscape is predominantly industrial with residential land situated farther afield to the southwest.

1.6. The site is additionally situated approximately 2.8km northeast of Heathrow Airport. RAF Northolt lies approximately 5km north of the site. Given that the site is within 13km of Heathrow Airport and RAF Northolt, it lies within the safeguarding zone where aircraft are at lower altitudes and at increased risk of birdstrikes. All developments within the 13km radius require consultation to ensure no potential increases in birdstrike risk.

1.7. The purpose of this document is to ensure that the risk of birdstrike as a direct result of the development does not significantly increase.

1.8. The proposals have been assessed in the context of the regulatory framework published by the Convention on International Civil Aviation and European Commission Regulation 139/2014, and guidelines set out in the UK Government DfT / ODPM Circular 1/2003 and CAP 772 Wildlife Hazard Management at Aerodromes, produced by the Civil Aviation Authority (CAA, 2014).

1.9. The information contained within this document identifies the potential hazards resulting from the proposed development, considers the likelihood of that potential and illustrates how risks of bird hazard will be minimised through implementation of measures during construction, through good design, and through management and

monitoring during the operational phase, with the aim of reducing any residual risk to as low as reasonably practicable.

2. Convention of International Civil Aviation Annex 14

2.1. Guidance on wildlife strike hazard reduction is provided by Annex 14 to the Convention on International Civil Aviation, published by the International Civil Aviation Organization (ICAO).

2.2. This is as follows[1] :

9.4 Wildlife strike hazard reduction

Note.—The presence of wildlife (birds and animals) on and in the aerodrome vicinity poses a serious threat to aircraft operational safety.

9.4.1 The wildlife strike hazard on, or in the vicinity of, an aerodrome shall be assessed through:

a) the establishment of a national procedure for recording and reporting wildlife strikes to aircraft;

b) the collection of information from aircraft operators, aerodrome personnel and other sources on the presence of wildlife on or around the aerodrome constituting a potential hazard to aircraft operations; and

c) an ongoing evaluation of the wildlife hazard by competent personnel.

9.4.2 Wildlife strike reports shall be collected and forwarded to ICAO for inclusion in the ICAO Bird Strike Information System (IBIS) database.

9.4.3 Action shall be taken to decrease the risk to aircraft operations by adopting measures to minimize the likelihood of collisions between wildlife and aircraft.

9.4.4 The appropriate authority shall take action to eliminate or to prevent the establishment of garbage disposal dumps or any other source which may attract wildlife to the aerodrome, or its vicinity, unless an appropriate wildlife assessment indicates that they are unlikely to create conditions conducive to a wildlife hazard problem. Where the elimination of existing sites is not possible, the appropriate authority shall ensure that any risk to aircraft posed by these sites is assessed and reduced to as low as reasonably practicable.

9.4.5 Recommendation. — States should give due consideration to aviation safety concerns related to land developments in the vicinity of the aerodrome that may attract wildlife.

2.3. Paragraphs 9.4.4 and 9.4.5 of this guidance are most relevant to the development, with the stipulation *to prevent the establishment of garbage disposal dumps or any other source which may attract wildlife to the aerodrome, or its vicinity.*

[1] American English text retained from the original.

3. European Commission Regulation 139/2014

3.1. Regulation 139/2014 sets out the regulatory framework at the European level and is administered by the European Aviation Safety Agency (EASA). Sections relevant to wildlife management at aerodromes are as follows:

Article 9

Monitoring of aerodrome surroundings

Member States shall ensure that consultations are conducted with regard to human activities and land use such as:

…

(e) the creation of areas that might encourage wildlife activity harmful to aircraft operations;

…

Article 10

Wildlife hazard management

1. Member States shall ensure that wildlife strike hazards are assessed through:

(a) the establishment of a national procedure for recording and reporting wildlife strikes to aircraft;

(b) the collection of information from aircraft operators, aerodrome personnel and other sources on the presence of wildlife constituting a potential hazard to aircraft operations; and

(c) an ongoing evaluation of the wildlife hazard by competent personnel.

2. Member States shall ensure that wildlife strike reports are collected and forwarded to ICAO for inclusion in the ICAO Bird Strike Information System (IBIS) database.

3.2. This document considers the potential hazards arising as a result of the development and the means by which they will be addressed.

4. DfT / ODPM Circular 1/2003

4.1. Department for Transport / Office of the Deputy Prime Minister Circular 1/2003 places responsibility for aerodrome safeguards with the aerodrome operators and introduces a consultation process for any development proposals which may affect an aerodrome.

4.2. Heathrow Airport and RAF Northolt are relevant aerodrome operators and so must be consulted on any planning application within the safeguarding area (13km).

4.3. It is the responsibility of the aerodrome operator to take all reasonable steps to ensure that the aerodrome and its surrounding airspace are safe at all times for use by aircraft.

4.4. One of the purposes of safeguarding of aerodromes in this way is to *"…ensure that their operation and development are not inhibited…by developments which have the potential to increase the number of birds or the bird hazard risk"* [Circ 1/2003 Annex 2 para 3].

4.5. Notwithstanding this reference, it is important to note that an increase in the number of birds in the vicinity of an aerodrome is not in itself a problem; it is the possible increase in birdstrike risk that is the issue of concern which plans are required to address. An increase in non-problem bird species is of no significance to the overall birdstrike risk.

4.6. Annex 2 to Circ 1/2003 sets out particular advice on birdstrike hazard and identifies particular forms of development which are most important and where the primary aim is to guard against new or increased hazards. These are: *"…facilities intended for the handling, compaction, treatment or disposal of household or commercial wastes; the creation or modification of areas of water such as reservoirs, lakes, ponds, wetlands and marshes; nature reserves and bird sanctuaries; and sewage disposal and treatment plant and outfalls"* [Circ 1/2003 Annex 2 para 8].

4.7. Annex 2 also advises that "…A local planning authority will need to consider not only the individual potential bird attractant features of a proposed development but also whether the development, when combined with existing land features, will make the safeguarded area, or parts of it, more attractive to birds or create a hazard such as bird flightlines across aircraft flightpaths" [para 9].

4.8. For the types of development described in paragraph 8 of the Circular a Local Planning Authority is advised to ask an applicant to demonstrate by means of a risk assessment that the development would not be likely to increase the bird hazard risk to aircraft.

5. CAP 772 Wildlife Hazard Management at Aerodromes

5.1. CAP 772 sets out guidelines for the control of bird hazards in and around aerodromes. Whilst the document concentrates on bird control on aerodromes there is some relevant guidance for landscape areas in the vicinity.

5.2. The principal hazards are gulls, wading birds, pigeons and Starlings *Sturnus vulgaris*, and to a lesser extent corvids. Other species such as Canada Geese *Branta canadensis* and Greylag Geese *Anser anser* are considered in the CAA Safety Regulation Group document *Large Flocking Birds – An International Conflict Between Conservation and Air Safety*, but are of lower concern in a UK context. The objective of CAP 772 is to reduce the potential for roosting and to make sure that landscape areas are not attractive to such large flocking bird species. Smaller birds that do not form dense flocks have a low hazard potential.

5.3. Typical measures to accommodate the recommendations of CAP 772 are:

- Reduce tree planting density to 4m centres or lower, use open rides and thin existing stands to avoid formation of Starling roosts;
- Reduce species providing abundant winter food source, the most attractive of which are Holly *Ilex aquifolium* (female), Rowan *Sorbus aucuparia*, Hawthorn *Crataegus monogyna*, *Viburnum* spp. and *Cotoneaster* spp. together with Crab Apple *Malus sylvestris* and Honeysuckle *Lonicera* spp.;
- Pay attention to normal management programmes such as trimming Hawthorn hedges, which can limit berry production and thereby form part of a mitigation strategy; and
- Avoid larger, permanent open water sites.

6. Safeguarding of Aerodromes Advice Note 8

6.1. Advice Note 8 sets out the hazards which may arise from building design and advises on measures to avoid them, or where this is not possible to mitigate and manage these hazards to reduce them to acceptable levels.

6.2. Section 4 of Advice Note 8 states that the following features should be considered when designing a building:

- Roof overhangs should be kept to a minimum;
- Ledges beneath overhangs and external protrusions should be avoided where possible;
- Steeply pitched roofs should be used to deter gulls from nesting, roosting and loafing;
- The roof space be designed in such a way as to prevent access by birds;
- Self-closing doors to prevent access to birds or openings should have plastic strip curtains fitted; and
- Where flat and / or shallow pitched roofs greater than 10m x 10m cannot be avoided in the design, there must be access available by foot to all areas of the roof to ensure that any hazardous birds, nesting, roosting and loafing can be dispersed and where necessary any nests and eggs can be removed (see note below regarding licences).

6.3. Prevention, inspection and dispersal measures are included at Section 5, and comprise the following:

- Netting;
- Bird spikes;
- Pyrotechnics;
- Distress Calls;
- Removal of Nests and / or Eggs (under the relevant Natural England licence as appropriate); and
- Inspections, where flat or shallow pitched roofs are present.

6.4. Management of birds relating to flat or shallow pitched roofs would include the following measures:

- Confirmation that access to all areas of the roof is available and by what method, to ensure that inspections can be carried out;
- Confirmation that inspections will be carried out year round with increased frequency during the breeding season;

- Confirmation that any nests / eggs will be removed, with the appropriate licences first being obtained;

- Confirmation that any hazardous birds found nesting, roosting and loafing will be dispersed when detected or when requested by Airfield Operations staff. In some instances, it may be necessary to contact Airfield Operations staff before bird dispersal takes place;

- Details of any dispersal methods to be used; and

- A log to be kept of bird numbers and species utilising the roof(s).

7. Safeguarding of Aerodromes Advice Note 3

7.1. Advice Note 3 considers the types of development that may come forward in the vicinity of an aerodrome and the particular issues that can arise. Parts of the advice are similar to that provided in the (earlier) Advice Note 8.

7.2. Developments such as Housing, Factories, Industrial Estates / Units, Mineral extraction and Green roofs can provide food and shelter for urban species such as Pigeons, Gulls, Corvids, Starlings etc.

7.3. Buildings with flat roofs can provide nesting opportunities for gull colonies; Feral Pigeons, Jackdaws and Starlings can take advantage of ledges and gullies for nesting sites and perching areas.

7.4. The advice sets out ways in which these potential risks could be reduced, as follows:

- Netting to proof roofs and exclude hazardous species;
- Roof overhangs kept to a minimum;
- Ledges beneath overhangs and external protrusions avoided where possible;
- Redesign roof to steeply pitched to deter Gulls from loafing, roosting and resting;
- Lighting structures proofed to prevent perching;
- Choice of roof material to reduce attractiveness (smooth surfaces with minimal protrusions or vents to reduce breeding opportunities);
- Roof spaces to be designed in such a way as to prevent access by birds;
- Self-closing doors to prevent access to birds or openings fitted with netting or plastic strip enclosure materials;
- Safe access by foot access to all areas of roof that cannot be proofed;
- Outside dining areas enclosed or avoided in close proximity to an aerodrome.

7.5. Advice is provided with regards to monitoring and inspection of gulls, as follows:

During the breeding season for Gulls, for example, inspections to assure compliance with a 'no breeding' BHMPs should be carried out at least weekly during the breeding season, (e.g. Gulls typically April to June). To ensure that all hazardous birds found nesting are dispersed and any nests and / or eggs are removed. This process should be fully documented to provide an audit trail.

For roosting or loafing (resting) birds, regular inspections should be carried out and if the threshold level is exceeded then birds should be dispersed. The frequency of inspections should be dictated by the presence of hazardous birds and be sufficient as to ensure the efficacy of the plan. This process should be fully documented to provide an audit trail and compliance site visits from the aerodrome operator may be required, subject to the necessary Health and Safety considerations.

8. Risk Management of Union Park UP4

8.1. The proposals are for the construction of new industrial buildings with associated parking and landscaping. Specifically, a data centre block (UP4) is now proposed to the west of the wider Union Park site (see Appendix 1). This block will adjoin to the permitted UP3 block and will include an accompanying energy centre.

8.2. This does not constitute one of the 'most important' types of development that create new or increased birdstrike hazards, such as landfill and mineral extraction as set out in DfT / ODPM Circular 1/2003 Annex 2 paragraph 8.

8.3. The principal source of potential risk for the development is the establishment of an area of flat roof. This is the issue that has been raised by the MOD. Shallow and flat roofs are attractive to species such as gulls to roost, nest and loaf. The new industrial buildings will provide large areas of flat roofs which provide the potential to attract gulls and feral pigeons.

8.4. New landscape planting is proposed as part of the development. Factors such as planting of trees and bushes are referred to in Paragraph 8 of Annex 2 to Circular 1/2003.

8.5. Given the pre-development status of the site, it is not likely that the construction phase would give rise to any significant additional risk. Significant areas of topsoil will not be exposed, and no significant areas of standing water are expected to establish.

8.6. Chapter 4 of CAP 772 identifies the various risks that can arise within and adjacent to an aerodrome, which include the presence of food sources, nest and roost sites and the presence of open water.

8.7. Certain plant species, generally berry-bearing species, are considered to be greater attractants for birds, and it is recommended that such species be avoided.

8.8. CAP 772 states that buildings and structures with access holes and crevices provide nest sites and roosts, especially for Feral Pigeons and Starlings, but also gulls. Pigeons roost and nest inside buildings and on ledges on their exteriors. It is recommended that wherever possible flat roofs be avoided, and that where they are constructed they be fully accessible for inspection purposes.

8.9. Section 5 of Chapter 4 lists off-aerodrome bird attractant habitats. The proposed development is not located on *The Coast* and does not include *Landfills for Food Wastes; Sewage Treatment and Disposal; or Sand Gravel and Clay Pits.*

8.10. Overall, the development of the site has the potential to increase bird hazards in the vicinity of Heathrow Airport and RAF Northolt if not subject to appropriate avoidance and mitigation measures.

8.11. The Bird Hazard Management Plan is concerned with managing potential risks that may arise during the operational phase.

9. Bird Hazard Management Plan

9.1. Taking into account the regulations and guidance reviewed in the previous sections, this section sets out the means by which bird hazards will be addressed and monitored as part of the development.

9.2. The overarching principle of this plan is that the developer implements all reasonable endeavours to maintain the birdstrike risk associated with the development as low as reasonably practicable, in line with published guidance and legislation.

Operational Phase

Roof Overhangs

9.3. The design of the roof of the building is such that these are kept to a minimum to reduce nesting opportunities. Any vents or skylights will be fitted with appropriate grilles or netting to prevent gull nesting opportunities.

Roof Inspections

9.4. All areas of flat roof will be easily accessible for safe inspection via stairwells.

9.5. All areas of flat roof will be inspected on a weekly basis (or sooner if bird activity dictates) during the nesting bird season (March to August inclusive). Inspections will be undertaken by a designated person or company. During the remainder of the year inspections would be undertaken on a monthly basis. In the event that bird activity during any given period is found to be high, the frequency of inspections would increase. All accessible roof spaces would be searched for roosting, loafing and nesting birds such as gulls and Feral Pigeon.

9.6. Any roosting or loafing birds would be dispersed by means of human presence and activity. Moving slowly towards the birds is likely to be sufficient.

9.7. Where nesting birds are found an ecologist would be contacted for advice. All wild birds are protected while nesting and removal of nests and eggs may require a Natural England licence. If it is clear that eggs are not present, then any nest in the process of being constructed can be cleared away without the need for further advice or intervention. As a general principle the roof area should be kept free of material at all times.

Bird Spikes

9.8. Bird spikes will be located at the edges of rooftops, on gutters and ledges, and on the ridges of building roofs. Wherever possible, bird spikes would be affixed to the top of lighting columns. These would be inspected and replaced, if necessary, as part of annual site maintenance.

Log of Activity

9.9. A paper and electronic log of monitoring activity will be kept by the designated individual or company and will be available for inspection by interested parties. Details

of activities undertaken and of birds recorded will be kept, together with views on the efficacy of measures taken. An example of a recording sheet is included at Appendix 2.

Reassessment

9.10. The effectiveness of these measures will be reassessed on a six-monthly basis. Where they are considered to be lacking then additional methods such as netting of roofs and use of installed sonic deterrents will be considered.

Trees and Shrubs

9.11. CAP 772 cites formation of Starling roosts as being a significant potentially hazardous consequence of landscape proposals within a development. Such risks are only seasonal, with the huge communal roosts of this bird species forming between late summer and winter. These roosts are commonly found in "… dense vegetation, such as thorn thickets, game coverts [and] young un-thinned conifer screening belts."

9.12. New planting is proposed as part of the development, but this is to compensate for the loss of existing vegetation. Thus, no additional risk is envisaged in this regard.

9.13. The landscape scheme includes a low proportion of berry-bearing species and is therefore not likely to represent a significant attraction to flocking species.

Water Features

9.14. Chapter 5 of CAP 772 states that:

Water bodies ranging from small ponds to large manmade reservoirs can attract wildlife for food (weed, vertebrate and invertebrate species), roosting (space and security) and nesting sites (often islands or spits). Waterfowl, wading birds, fish eating birds (cormorants, herons, grebes and egrets) and gulls may congregate in large numbers.

9.15. The Grand Union Canal runs adjacent to the site. Given its lack of vegetation and level of anthropogenic disturbance, it is not considered to provide suitable habitat to support significant numbers of large waterfowl or gulls. Gulls and waterfowl may be attracted to the canal through feeding by the public.

9.16. Proposals do not include soft landscaping along the river corridor. The woodland that is present within the canal's riparian zone will be retained entirely, thus there will be no net increase in woodland / vegetation along the watercourse. New landscaping within the development will include flower-rich and amenity grassland, a pond, tree planting, hedgerow planting, and brown roofs. Native species will be primarily used across the site. This planting will compensate for the habitats lost from within the site (Ruderal/Ephemeral, Introduced Shrub, Treeline and Individual Trees). Existing metal fencing separates the site from the woodland bordering the Grand Union Canal, thus preventing potential feeding of wildlife on the canal. 'No feeding' signs will be installed as an additional prevention measure.

9.17. Given the proximity of the Grand Union Canal, it is not considered that the new pond will attract bird presence in any meaningful amount. As a precaution, 'No feeing' signs will be erected at the pond.

9.18. As stated in Condition 14 any new attenuation features should be designed so that they remain dry throughout the year and only contain water during and immediately following periods of heavy rainfall. Suitable designs include using fast draining substrate such as gravel or sand.

Waste Imports and Monitoring

9.19. As the proposals do not feature use of the site for landfill, incineration or the treatment of hazardous wastes, no wastes are to be brought onto the site.

Waste Collection and Storage

9.20. Chapter 5 of CAP 772 states that:

Waste food is an attractant to gulls, corvids, pigeon species and starlings in particular and should not be tolerated [...]. Where food waste could occur, all bins and skips provided should be of designs that prevent animals (such as foxes and rodents) and birds getting in; for example, with drop-down or swinging lids. They should be emptied before they overflow.

9.21. Any food, garden or other putrescible wastes produced within the proposed development will be disposed of in appropriate refuse bins, which will be installed at suitable locations.

9.22. Bins will be of designs that exclude birds (e.g. with drop-down or swinging lids), as will any skips used for refuse. Bins will be subject to standard collections.

Obligations and Undertaking

9.23. The following section sets out the commitment of the end user of the development to implement the Bird Hazard Management Plan as set out in this section. The wording will be agreed with Heathrow Airport, the MOD and Hillingdon Borough Council.

10. Obligations and Undertaking

I / We can confirm the following

- That the roofs are constructed in such a manner so that all areas are safely accessible to enable any nests and eggs to be cleared and birds to be dispersed.
- Checks will be made weekly or sooner if bird activity dictates, during the breeding season by an appointed person / company. The breeding seasons for gulls typically runs from March to August inclusive.
- Any birds found nesting and/or roosting and / or loafing during the breeding season will be dispersed when detected and / or when requested by Heathrow Airport or MOD Airfield Operations staff.
- Any nests or eggs found will be removed, the appropriate licence(s) will be obtained from Natural England beforehand if required.
- Checks will be made on a regular basis, as dictated by bird activity, outside of the breeding season by a nominated person/company.
- Any birds found roosting and / or loafing outside of the breeding season will be dispersed when detected and / or when requested by Heathrow Airport and / or MOD Airfield Operations Staff.
- The methods of dispersal used will be as follows:
  - Physical disturbance through human presence
- A log will be kept which will detail the following:
  - Dates and times of inspections
  - Who carried out the inspections
  - Bird numbers and species seen
  - Details of any dispersal action taken along with details of any nests/eggs removed.
  - The log must be available to Heathrow Airport and / or MOD Airfield Operations to view upon request.

Review of the Management Plan

The management plan shall be subject to review to reflect changes in habitat or populations of bird species. Should the airport deem it necessary, a meeting between Heathrow Airport Limited, the MOD, the developer / operator and / or Hillingdon Borough Council will be convened at the earliest opportunity to discuss and agree any changes which may be necessary.

Inspection & Site Access

Heathrow Airport Limited, the MOD or their nominated representatives will be allowed access to the site by prior arrangement, to evaluate the success of the Management Plan and to review any remaining birdstrike hazard.

Long Term Management

This Management Plan will remain enforceable by Heathrow Airport Limited, the MOD, Hillingdon Borough Council, the CAA or any successor to these bodies throughout the existence of the buildings. These obligations will be passed to any subsequent owners/operators of these buildings and land.

Signed:

On behalf of:

Date:

11. Summary and Conclusions

11.1. Ecology Solutions was commissioned by Ark UP4 Limited in October 2024 to complete a Bird Hazard Management Plan for the site at Union Park, land at Bulls Bridge Industrial Estate, Hayes, UB3 4QQ.

11.2. The site is situated approximately 2.8km northeast of Heathrow Airport. RAF Northolt lies approximately 5km north of the site. Given that the site is within 13km of Heathrow Airport and RAF Northolt, it lies within the safeguarding zone where aircraft are at lower altitudes and at increased risk of birdstrikes. All developments within the 13km radius require consultation to ensure no potential increases in birdstrike risk.

11.3. The site is approximately 1.26ha in size and situated within the London Borough of Hillingdon. There is an existing building on site, which has a total area of circa 3,500sqm of floorspace and was formerly occupied by Addison Lee for the repair, maintenance, and replacement of private hire vehicles. This building, along with the associated hardstanding, dominates the site. This building is expected to be demolished during consideration of the planning application. Small parcels of ephemeral habitat are located in the north and south of the site and a treeline is located in the southeast. Individual trees and ornamental shrub species are also present. Broadleaved woodland occupies a small area within the west of the site and extends southwards to the Grand Union Canal. The Great Western Main Line railway borders the north of the site and the wider Union Park construction site the east. The wider landscape is predominantly industrial with residential land situated farther afield to the southwest.

11.4. The purpose of this document is to ensure that the risk of birdstrike as a direct result of the proposed development does not significantly increase. The proposals have been considered in the context of the relevant regulations and guidelines.

11.5. The effect of the construction phase on birdstrike risk are considered to be negligible. The principal issue raised is that the roofs of the new buildings may be attractive to problem bird species, particularly roosting, nesting and 'loafing' gulls. All roof areas are to be safely accessible and will be subject to regular inspection to disperse any birds that may be present. A log of activity will be kept.

11.6. The new planting proposed as part of the development is to compensate for the loss of existing vegetation. The landscape scheme includes a low proportion of berry-bearing species to limit the attraction of the site to flocking species such as Starling.

11.7. Given the location of the site, adjacent to the Grand Union Canal, appropriate measures will be undertaken to reduce the attraction of waterfowl. This will include preventing access and providing 'no feeding' signs.

11.8. The end user of the development will be given an undertaking to implement the Bird Hazard Management Plan.

11.9. Overall, with these measures in place it is considered that the development of the site that would not result in an additional significant birdstrike risk to Heathrow Airport or RAF Northolt during the construction or operational phases.

12. References and Bibliography

Anon (2003). *Department for Transport (DfT) / Office of the Deputy Prime Minister (ODPM) Circular 1/2003 – Advice to Local Planning Authorities on Safeguarding Aerodromes and Military Explosives Storage Areas*. HMSO, London.

Airport Operators Association & General Aviation Awareness Council (2008). *Safeguarding of Aerodromes Advice Note 8: Potential Bird Hazards from Building Design*.

Airport Operators Association in Association with Civil Aviation Authority (2016). *Safeguarding of Aerodromes Advice Note 3: Wildlife Hazards around Aerodromes.*

Civil Aviation Authority. *Large Flocking Birds – An International Conflict Between Conservation and Air Safety.* Civil Aviation Authority, London.

Civil Aviation Authority (2002). *CAP 680 Aerodrome Bird Control*. Civil Aviation Authority, London.

Civil Aviation Authority (2003). *CAP 738 Safeguarding of Aerodromes.* Civil Aviation Authority, London.

Civil Aviation Authority (2008). *CAP 772 Birdstrike Risk Management for Aerodromes.* Civil Aviation Authority, London.

Civil Aviation Authority (2014). *CAP 772 Wildlife Hazard Management at Aerodromes.* Civil Aviation Authority, Gatwick.

East Midlands Airport (2016). *Wildlife Hazard Management: Airside Operational Instruction 15*. Manchester Airports Group.

European Commission (2014). *Commission Regulation (EU) No 139/2014 of 12 February 2014 laying down requirements and administrative procedures related to aerodromes pursuant to Regulation (EC) No 216/2008 of the European Parliament and of the Council*.

ICAO (2013). *Annex 14 to the Convention on International Civil Aviation*. Sixth Edition. Volume I Aerodrome Design and Operations. International Standards and Recommended Practices. International Civil Aviation Organization, Montréal.

International Bird Strike Committee (2006). *Recommended Practices No. 1: Standards For Aerodrome Bird / Wildlife Control.*

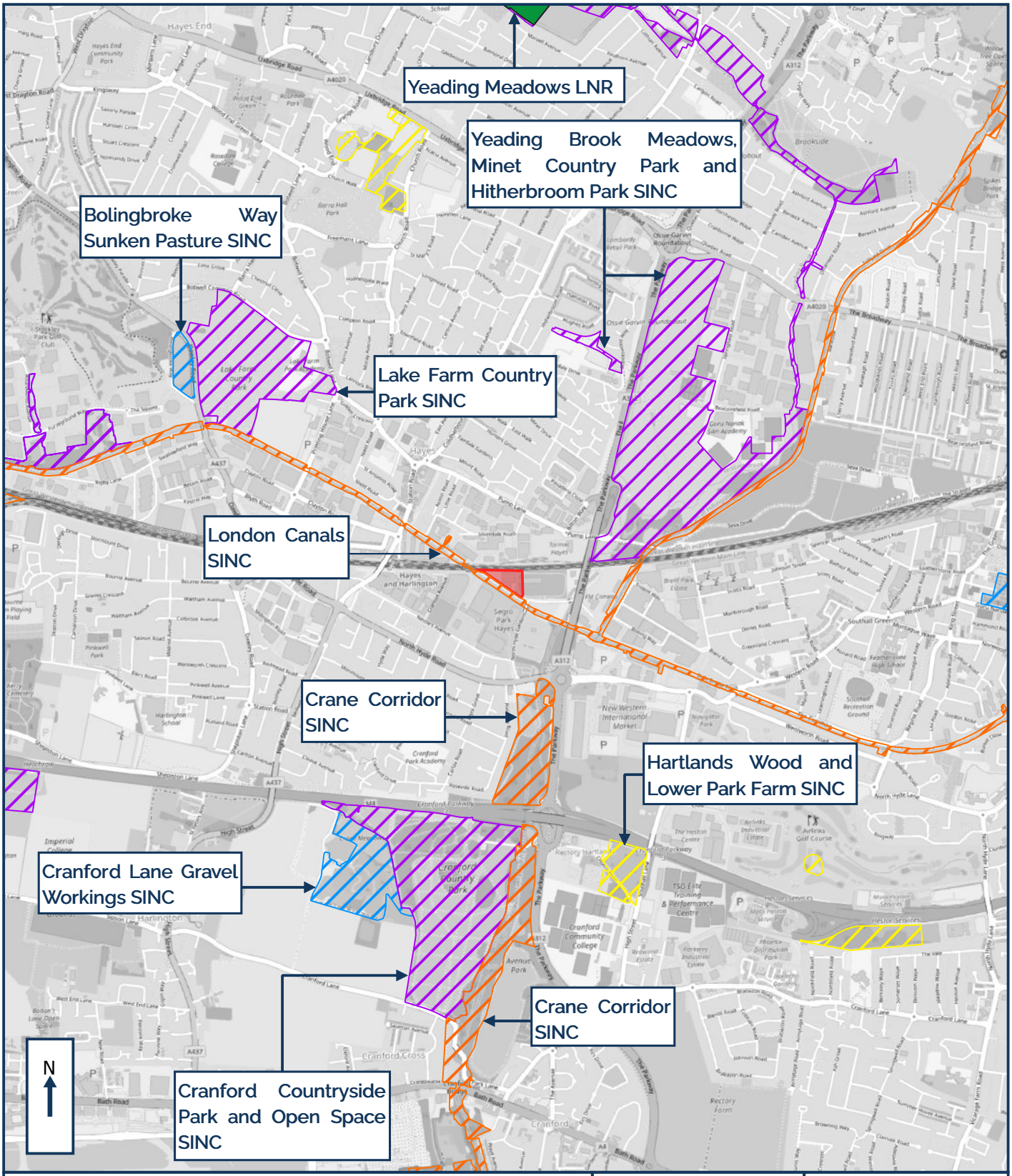
Stefanioros, V and Olah, Z (2014). *Requirements for wildlife control at aerodromes*. Powerpoint presentation. European Aviation Safety Agency, Cologne.

Plans

ECOLOGY SOLUTIONS
LANDSCAPE, MITIGATION & BIODIVERSITY
A PHENNA GROUP COMPANY

PLAN ECO1

Site Location and Ecological Designations



KEY:

- SITE BOUNDARY
- LOCAL NATURE RESERVE (LNR)

SITES OF IMPORTANCE FOR NATURE CONSERVATION (SINC)

- METROPOLITON IMPORTANCE
- BOROUGH IMPORTANCE GRADE 1
- BOROUGH IMPORTANCE GRADE 2
- LOCAL IMPORTANCE

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PLAN ECO1: SITE LOCATION AND ECOLOGICAL DESIGNATIONS

Rev: A

Nov 2024

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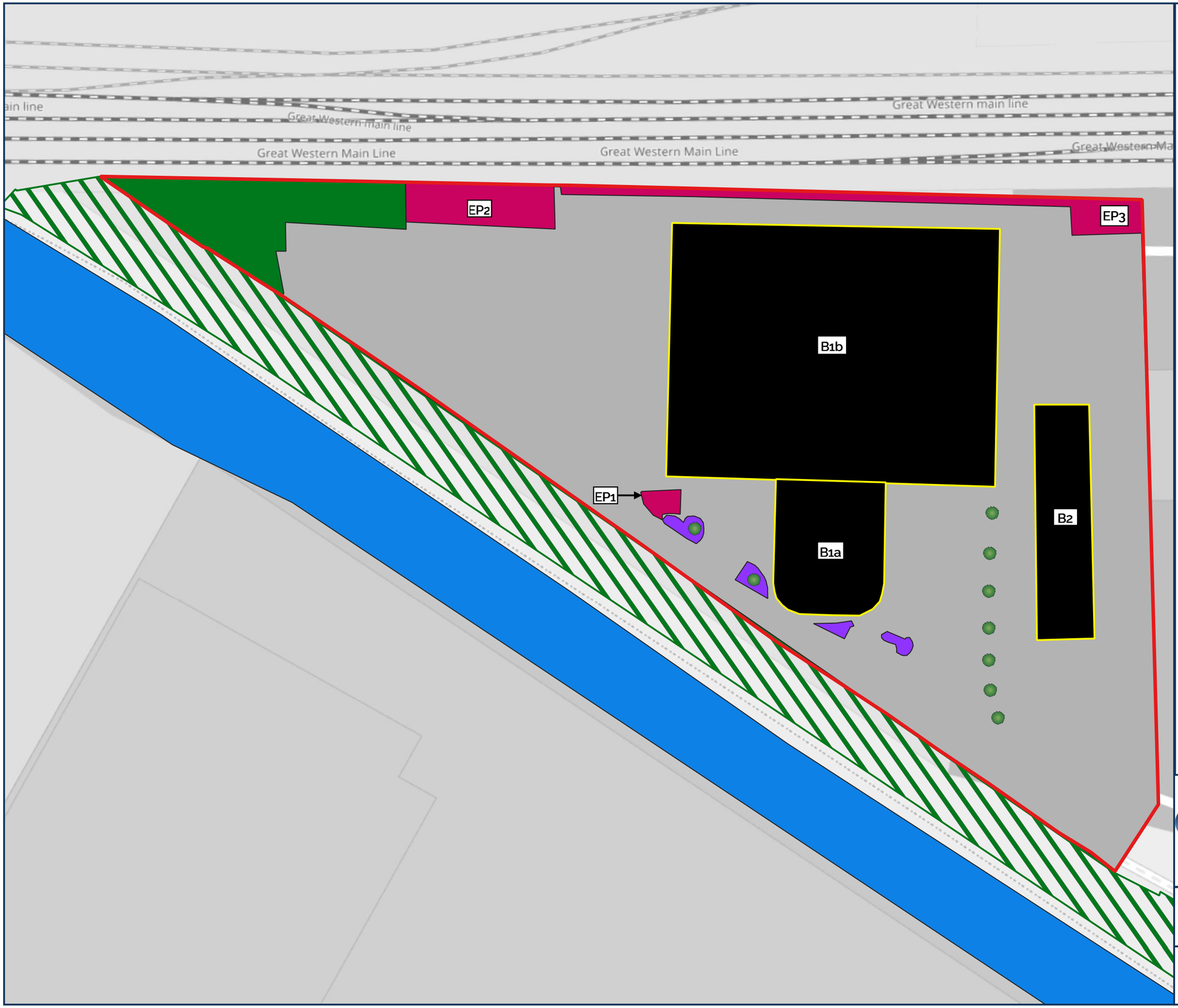
PLAN ECO2

Ecological Features



KEY:

- SITE BOUNDARY
- DEVELOPED LAND; SEALED SURFACE
- INDUSTRIAL BUILDING
- OTHER BROADLEAVED WOODLAND
- RUDERAL OR EPHEMERAL
- INTRODUCED SHRUB
- INDIVIDUAL TREE

OFFSITE HABITATS

- GRAND UNION CANAL
- OTHER BROADLEAVED WOODLAND

N

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11746: UP4, UNION PARK, LAND AT BULLS BRIDGE INDUSTRIAL ESTATE, HAYES, UB3 4QQ

PLAN ECO2: ECOLOGICAL FEATURES

Rev: A

Dec 2024

Appendices

APPENDIX 1

Block 4 Landscape Masterplan
(Drawing MWL-0474-SEW-ZZ-DR-L-100003 P12
- Murdoch Wickham)

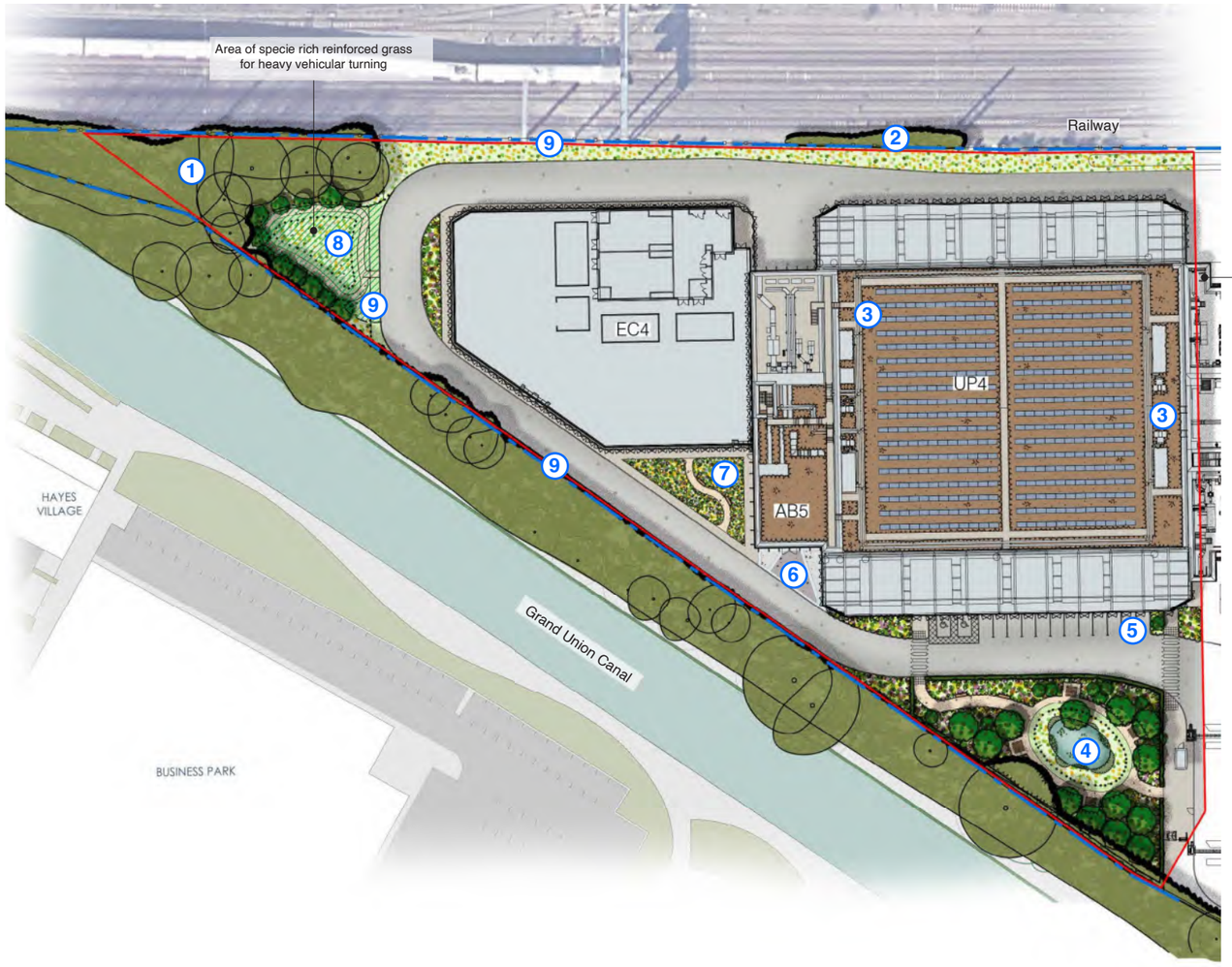
Landscape Elements

1. Existing vegetation retained and managed appropriately with additional native scrub planting within the woodland area
2. Off-site tree group to be pruned back towards site boundary
3. Extensive brown roof, providing a landscape treatment to the roofscape, to be designed in conjunction with services and utilities, enhancing the biodiversity of the roofs
4. A Wellbeing Garden has been created for staff, offering a peaceful retreat for staff breaks. The garden features picnic tables, vibrant planting, and an ecological pond. Planting is strategically positioned to provide a natural screen from the nearby buildings and car parking to the north, with trees and hedges lining the northern and eastern boundaries. Seating areas and pathways are orientated to provide tranquil seating areas overlooking the pond.
5. Car parking with specimen shrub planting to provide an attractive arrival road into Phase 4
6. Feature paving used at the building entrance
7. A stylised, south-facing 'Prairie' garden designed with an ecological focus provides seasonal interest and vibrant colour, featuring a variety of pollinator-friendly plants to boost biodiversity. Integrated seating areas to provide a tranquil space
8. Area of specie rich reinforced grass for heavy vehicular turning
9. Security perimeter fencing to provide a high level of security required for a data centre.

Legend

- Ownership boundary
- Application boundary
- Existing planting to be reinforced with native trees & scrub subject to approval from C.R.T.
- Proposed trees
- Hedge planting
- Shrub planting
- SUDs pond planted for biodiversity
- Specie rich wildflower grass
- Specie rich reinforced grass
- Permeable bitumen macadam to road
- Gravel path
- Picnic table
- Staff seating
- Brown roof
- Security fence, refer to Architect's drawings for details

Landscape Masterplan
Scale 1:500



Scale
1:500
0 5 15 30m
N

Tree Location Plan
NTS

Tree Schedule

Open Space Trees
Planted advanced nursery stock

Acer campestre
Carpinus betulus
Betula pendula

Water Associated Trees
Planted as multi-stems

Betula pendula

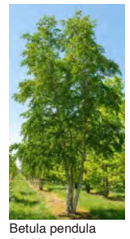
Wellbeing Garden Trees & Specimen Shrubs
Planted as advanced nursery stock & multi-stems, 3-4m & 5-6m high

Acer campestre 'Elsrijk'
Betula pendula (multi-stem)
Cornus mas (multi-stem umbrella)
Euonymus europaeus (multi-stem umbrella)

Open Space Trees


Acer campestre


Acer campestre 'Elsrijk'


Betula pendula (multi-stem)

Wellbeing Garden Trees


Cornus mas (multi-stem umbrella)

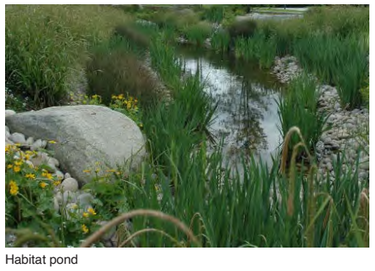

Euonymus europaeus (multi-stem umbrella)

Landscape Images


Prairie style planting


Landscaping along parking bays


Wellbeing garden


Habitat pond


Picnic area

MURDOCH WICKHAM
THE LANDSCAPE ATELIER
The Tithe Barn, Bradbourne House, East Malling, Kent, ME19 6DZ
01732 752780 murdochwickham.com

Client: Sweet Projects
Date: November 2023

Drawn by: JM
Scale: 1:500 @ A1

Union Park, Hayes, Block 4
Block 4 Landscape Masterplan
MWL-0474-SEW-ZZ-DR-L-100003 P12

APPENDIX2

Example Bird Hazard Management Log

Bird Hazard Management Log

DATE	TIME	INITIALS	BIRD SPECIES AND NUMBERS			ACTION TAKEN
			GULLS			

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