



ECOLOGICAL EXPERTISE, EVOLVED

# **One Vinyl Square, Hayes**

## **Bird Hazard Management Plan**

Prepared on behalf of

ARJ Construction - C/O Ayre Chamberlain Gaunt

Final Report

04 July 2022

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## Bird Hazard Management Plan

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# **One Vinyl Square, Hayes**

## **Bird Hazard Management Plan**

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# One Vinyl Square, Hayes

## Bird Hazard Management Plan

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### 1. INTRODUCTION

#### **Brief**

- 1.1 The Council of the London Borough of Hillingdon has granted permission for the mixed-use redevelopment of One Vinyl Square, part of the Old Vinyl Factory, on Blythe Road, Hayes.
- 1.2 Condition 13 of the consent requires that:

*"Prior to above ground works, a Bird Hazard Management Plan shall be submitted to and approved in writing by the Local Planning Authority in consultation with Heathrow Airport Limited and the Ministry of Defence. The submitted plan shall include details of:*

*- management of any flat/shallow pitched on buildings within the site which may be attractive to nesting, roosting and "loafing" birds. The management plan shall comply with Advice Note 8 'Potential Bird Hazards from Building Design'*

*The Bird Hazard Management Plan shall be implemented as approved and shall remain in force for the life of the building."*

- 1.3 Pursuant to the requirements of condition 13, this document, prepared by Ecological Planning & Research (EPR) on behalf of ARJ Construction - C/O Ayre Chamberlain Gaunt for Network Homes, is a Bird Hazard Management Plan for One Vinyl Square. The aim of this document is to moderate and manage bird behaviour that might otherwise present a hazard to aircraft safety, in view of the relative proximity of Heathrow International Airport and RAF Northolt to the redevelopment site.

#### **Site Location and Description**

- 1.4 One Vinyl Square (hereafter, 'the site') is part of a broader redevelopment area known as The Old Vinyl Factory, which was formerly the production centre of EMI Ltd. It lies to the south of Blyth Road, the east of Dawley Road, and north of the Great Western Main Line, within the town of Hayes in the west London Borough of Hillingdon (grid reference TQ 0917 7964). The surrounding landscape context is highly urbanised, generally comprising commercial development to the north of the railway line and residential settlement to the south.
- 1.5 The consented scheme comprises a new building that will be part eleven, part ten, and part nine stories in height, accommodating 134 new residential units, in addition to ground floor commercial premises.
- 1.6 The site lies 2.9km to the north of the curtilage of Heathrow International Airport, and 4.9km south of the curtilage of RAF Northolt.

## Legislation, Policy, and Guidance

### Aviation Safeguarding

- 1.7 Safeguarding aerodromes is a legal requirement under ICAO (International Civil Aviation Organisation) Regulations, EASA (European Aviation Safety Agency) Regulations, and UK aviation law - the latter of which is undergoing a process of recodification following the end of the UK/EU Agreement transitional period on 31 December 2020.
- 1.8 DfT/ODPM Circular 01/2003 *Safeguarding of aerodromes, technical sites and military explosives storage areas*, cited as the Town and Country Planning (safeguarded aerodromes, technical sites and military explosives storage areas) direction 2002, sets out safeguarding requirements as they relate to the planning system.
- 1.9 Annexe 2 of this directive prescribes the arrangements for safeguarding licensed aerodromes, which include the production of birdstrike hazard 'safeguarding maps', as a mechanism to identify statutory zones within which measures may be required to "guard against new or increased hazards caused by development". Local planning authorities have a duty to consult the relevant consultee before permitting any development within the respective radius of a safeguarded aerodrome which is likely to attract birds, and to consider whether proposed development will make parts of the safeguarding zone more attractive to birds or generate a new or increased hazard.
- 1.10 Civil Aviation Authority (CAA) CAP 772: *Wildlife Hazard Management at Aerodromes* provides guidance to operators on measures that can be taken to assess and control birdstrike risk within aerodromes and their surrounding safeguarding zones. It notes that:

*"Virtually all land types and land uses (including natural habitats) attract wildlife in some way. Safeguarding should therefore address developments that could become wildlife attractants with the potential to increase the wildlife strike risk at a nearby aerodrome....*

*Where an assessment shows that the wildlife strike risk may increase or could increase under certain conditions in the future, and the aerodrome certificate/licence holder and developer are unable to agree a solution, the aerodrome operator may object to the planning application on aviation/air safety grounds. Local knowledge of wildlife populations and activities or an appropriate similar safeguarding case to support any objection can be used and objections withdrawn when measures implemented to manage risks are deemed acceptable (to the airport operator). It may be possible to modify a development (e.g. exclusion of food wastes from a new landfill) or impose planning conditions."*

- 1.11 Further guidance is provided in the Airport Operators Association (AOA) Advice Note 3: *Wildlife Hazards around Aerodromes*, which advises that:

*"The proposed development would need to either: increase the population of hazardous birds; or to generate flight lines that enter critical airspace, to increase the risk in order for it to be determined as unacceptable. Local conditions and existing attractants and bird populations will always influence the risk posed by a new development or construction site. In order to identify whether an application has the potential to increase the birdstrike risk at an aerodrome, the geographic location of the application site in relation to other key attractants, should be assessed....*

*Dependant on proximity or location in relation to other sites, the development may still be permissible or may require an appropriate Bird Hazard Management Plan (BHMP) to enable the development to gain planning permission. An assessment should include, but not limited to, species that are or could be problematic in and around the aerodrome.”*

1.12 At the local level, Policy DMAV1 of London Borough of Hillingdon Local Plan requires the Council to “*support the continued safe operation*” of Heathrow International Airport and RAF Northolt, and to consult with the respective operator on development proposals within safeguarded areas.

#### ***Wildlife Protection***

1.13 All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended), making it an offence, with certain exceptions (e.g. game birds), to intentionally kill, injure or take any wild bird and to take, damage or destroy their nests or eggs. In order to proceed lawfully, control measures that would otherwise constitute an offence must be undertaken under licence from Natural England.

#### **Methodology**

1.14 This Management Plan is an evidence-based document, informed by the results of field assessment and desktop review.

1.15 The site was visited by Craig Sellwood of EPR on 4 May 2022, with the objective of making an assessment of bird habitat suitability and behaviour within the surrounding area. Habitats and structures were surveyed from ground level and the top of the adjacent Music Box multi-storey car park, which provides commanding views over the site and its surrounds. Record was made of bird activity, the presence of potentially suitable habitat, evidence of nesting or roosting, and the occurrence of bird deterrence measures within the local built environment.

1.16 The desktop element included a detailed review of the design characteristics of the consented development, and the ecological context as reported in the *Desk Based Ecology Report* (RPS, 2019), submitted in support of the planning application.

1.17 The prescriptions set out in this Management Plan have also been informed by a review of relevant best practice guidance, as summarised below.

1.18 AOA Safeguarding of Aerodromes Advice Note 3: *Wildlife Hazards around Aerodromes* provides guidance on:

- The types of development that are potentially attractive to birds;
- Bird species of particular concern for aviation safety;
- The use of management controls (such as bird-proofing and preventative design); and
- The use of monitoring and inspections.

1.19 AOA Safeguarding of Aerodromes Advice Note 8: *Potential Bird Hazards from Building Design* provides guidance on:

- Building design to discourage bird use;

- Deterrence measures such as netting and spikes;
- Bird activity inspections; and
- Dispersal measures such as bird-scaring and the physical removal of nests and/or eggs.

## 2. BIRDSTRIKE HAZARD EVALUATION

2.1 This section of the Management Plan evaluates the potential hazards to aviation presented by the consented development, in order to provide an evidence base for the prescription of proportionate hazard management measures.

2.2 AOA Advice Note 3 identifies the following bird species groups as particularly likely to present a hazard to air security:

- All wildfowl;
- All large waterfowl;
- Gamebirds;
- Birds of prey;
- Large waders;
- All gull species;
- All pigeon species;
- All corvid species; and
- Starlings.

2.3 In general terms, larger species and those that habitually live in flocks can be regarded as relatively hazardous to aviation. Allan (2008)<sup>1</sup> calculates that birds of less than 100g mass would damage aircraft in only 2.5% of strike incidents, whereas those of more than 1kg mass would cause damage in 22% of incidents.

2.4 Given the character of the proposed development and its highly urbanised landscape setting, the key species of potential concern are larger, flocking birds with a tendency to nest on roofs in urban areas - i.e. feral pigeons and gulls (particularly including the Lesser Black-backed Gull *Larus fuscus* and Herring Gull *L. argentatus*).

2.5 Potential attractors or 'risk factors' for these species groups include nesting, roosting, and loafing opportunities presented by expansive flat or shallow-pitched roofs, and food sources, such as unsecured human food waste.

2.6 Feral pigeons were the only bird species recorded during the May 2022 survey of the site and its surrounds. This species was only observed in very low numbers, and there was negligible observable evidence of nesting or roosting (such as the presence of nesting material or accumulations of droppings) within the environs of the site. The very occasional use of netting

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<sup>1</sup> Allan, J. (2008) Taking account of aviation hazards in the development of a Wetland Vision for England. *Wetland Vision Technical Document: overview and reporting of project philosophy and technical approach*. The Wetland Vision Partnership.

to discourage perching upon rooftop plant equipment was the only ostensible evidence of the local application of bird deterrent measures.

2.7 The *Desk Based Ecology Report* also records that the derelict buildings which preceded redevelopment of the site were extensively used for nesting and roosting by feral pigeon. Indeed, it is reasonable to consider that, in relation to the baseline or pre-development position, the consented redevelopment is likely to occasion an overall net reduction in the availability of nesting, roosting, and loafing opportunities for potentially hazardous species.

2.8 This notwithstanding, the objectives of bird hazard management at One Vinyl Square are:

- In the first instance, to exclude potentially hazardous urban bird species by 'designing out' features that might otherwise attract them, such as expansive flat or shallow-pitched roofs, and unsecured food sources;
- To present a management and monitoring regime that will be effective in addressing any residual hazards.

2.9 It should be noted that the submitted *Desk Based Ecology Report* (RPS, 2019) includes a commitment to the provision of nest-boxes for Black Redstart *Phoenicurus ochruros* and House Sparrow *Passer domesticus*. These can be regarded as relatively desirable species both from a nature conservation perspective and for the purposes of this assessment, in view of their modest size (<50g) and, at least in respect of the former species, relatively ungregarious nature.

### **3. HAZARD MANAGEMENT BY DESIGN**

3.1 This section of the report describes design characteristics of the development that will serve to discourage colonisation by hazardous bird species.

#### *Roof-spaces Accessible to Residents*

3.2 Smaller roof areas are generally less likely to accommodate problematic bird populations. According to AOA Advice Note 8, flat or shallow pitched roof areas with dimensions of less than 10m x 10m are unlikely to support significant numbers of nesting, roosting, or loafing birds.

3.3 One Vinyl Square benefits from a multi-level design that includes a first floor podium roof terrace, and further roof structures on the ninth, tenth, and eleventh storeys, with the result that the overall roof-space is broken up into a series of discrete terraces, each relatively modest in scale.

3.4 With the sole exception of the 11th storey roof structure, each of these discrete roof areas will be provided as landscaped spaces that are fully accessible to residents, in accordance with the submitted amenity provision strategy. The resultant degree of recreational disturbance will be highly inimical to bird nesting, roosting, or loafing behaviour.

3.5 As set out in the Design and Access Statement, the first floor terrace is designed to provide an “active and social space”, with “areas for informal play and largely seating groups... integrated amongst planting”. The ninth floor terrace aims to “primarily provide social seating space amongst planting”, which takes the form of “small structural trees and shrubs”. The tenth floor terraces provide “both a communal growing space for residents and a social seating space.”

3.6 The proposed roof gardens are relatively intensive forms of amenity greenspace: active spaces designed to deliver maximum amenity benefit within a necessarily confined footprint, and providing predominantly formal, ornamental planting alongside hard landscaping and site furniture. From an ecological perspective, such spaces will be highly disturbed and present negligible opportunities for use by nesting, roosting, or loafing birds.

#### *Roof-spaces Inaccessible to Residents*

3.7 The eleventh storey is the only element of the external roof-space not to form part of the development’s amenity provision. This roof structure has relatively modest dimensions of approximately 14m by 17m, and has been designed to accommodate roof equipment such as vents and photovoltaic cells. It will be fully, safely and permanently accessible to maintenance personnel by means of either a fixed stair or ladder, thereby facilitating the implementation of a bird hazard management and monitoring strategy, as discussed below.

#### *Refuse Management*

3.8 Colonisation by hazardous bird species will also be discouraged by implementation of the approved refuse strategy. Residential units will be served by lidded 1,100 litre eurobins, provided within designated bin stores, and a separate commercial refuse store will be provided within the ground floor commercial unit.

3.9 Securely lidded bins will also be provided in the vicinity of spaces designated for outdoor dining, in addition to signage discouraging residents from deliberately feeding flocking birds.

## **4. ONGOING HAZARD MANAGEMENT AND MONITORING**

- 4.1 This section provides prescriptions for ongoing habitat management and monitoring measures that are required to address any residual hazard arising from the consented redevelopment.
- 4.2 The implementation of these measures will be the responsibility of the designated Management Company. The prescribed measures will be maintained for the full operational life of One Vinyl Square, or until such time as all affected aerodromes cease to operate, or advise that bird hazard management is no longer necessary.
- 4.3 It should be understood that such measures are intended to target potentially hazardous species as opposed to those for which bird nest boxes are proposed to be provided (i.e. the Black Redstart and House Sparrow).

### **During the Nesting Season**

- 4.4 The nest prospecting and egg-laying/incubation period is the most critical time of year for bird hazard management. During this period, birds are prospecting for potential nesting sites and will be most susceptible and responsive to intervention measures undertaken to discourage them from breeding.
- 4.5 This period is currently considered to extend from early March to mid-June, although this may change in future decades, as the effects of climate change continue to take hold, which will in turn necessitate an adjustment in management practices.
- 4.6 During this period, all roof structures at One Vinyl Square will be subject to a weekly inspection by a nominated agent of the Management Company. Any birds found nesting, loafing, or roosting during these inspections will be dispersed by direct disturbance measures such as close approach, waving arms, shouting, and clapping hands.
- 4.7 In the unlikely event that this approach proves ineffective, audio disturbance sources in the form of recorded distress calls targeted at the species in question will be deployed.
- 4.8 Should such disturbance fail to deter repeated nesting attempts by problem species, habitat manipulation, such as the installation of netting, may be required - subject to further consultation with the aerodrome operators.
- 4.9 In the event that any nests are established or eggs are laid, these will be removed by the inspecting agent or other nominated person (such as a pest control specialist), subject to the appropriate licences being granted by Natural England (or any successor organisation).

### **Outside the Nesting Season**

- 4.10 Outside the nest prospecting and egg-laying/incubation period (i.e. currently from late June to late February), all roof structures at One Vinyl Square will be subject to a monthly inspection by a nominated agent of the Management Company. As described above, any birds found loafing, or roosting during these inspections will be dispersed by direct disturbance measures, and the use of audible deterrents or habitat manipulation will be used to escalate the bird hazard response in the unlikely event that this is required.

## **Reporting and Review**

4.11 Full details of all roof inspections, including the numbers and species of birds encountered and the dispersal measures employed, will be recorded by the Management Company and made available upon request to the operators of Heathrow International Airport and RAF Northolt. The information recorded will include:

- The time and nature of all bird hazard inspections;
- The results of all such inspections;
- Details of any remedial measures taken; and
- The results of such remedial measures, including any subsequent actions that may be required.

4.12 The aerodrome operators will be informed in advance if large numbers (>50) of birds need to be dispersed, or in the event that bird numbers are found to increase over time, or that deterrent measures prove to be ineffective, in order to raise awareness of the potential hazard and provide a basis for the identification and agreement of additional measures.

4.13 If required, the Management Company will accommodate safe access to all roof structures by representatives of the aerodrome operators.

## 5. SUMMARY

5.1 This document prescribes the following measures to ensure that potential bird-related hazards to aviation are moderated and managed:

- The maintenance of full, safe, and permanent access for inspection to all parts of the roof structure;
- The prescription of an appropriate bird hazard inspection schedule, including weekly checks during the critical early nesting period, and monthly checks during the rest of the year;
- The prescription of appropriate dispersal measures if required (i.e. if potentially hazardous species are present), including direct disturbance in the first instance, and an escalation path to include the use of audible deterrents and habitat manipulation if required;
- The removal of active nests and eggs if required, and under licence, so that a legal offence can be avoided;
- The maintenance of an auditable record of inspections and hazard management interventions;
- Consultation with the aerodrome operators in the event that large numbers of hazardous birds need to be dispersed or if it transpires that the prescribed measures are insufficiently effective.