

1. Application Information

a) Location / Full Address	Orbital Industrial Estate, Horton Road, Yiewsley, Hillingdon, West Drayton UB7 8JL
b) Reference No.	79689/APP/2025/2438
c) Type of Application	Full Major
d) Date Reviewed	27/10/25
e) Name of Reviewer	BK
f) Existing Site Description	Employment uses (Application Form, pg. 7) Existing uses include food production, a butcher, car repairs and a joinery (Drainage Strategy, pg.7).
g) Site Characteristics	<u>Geology / Soil:</u> British Geological Survey (BGS) online mapping for the area shows that the site is likely underlain by bedrock of London Clay Formation below superficial geology deposits of formation Lynch Hill Gravel Member (Drainage Strategy, pg. 8). Sufficient infiltration was found in all 3 windowless boreholes; therefore, infiltration has been deemed a viable form of surface water disposal. A minimum design infiltration rate of 4.32×10^{-6} m/s can be applied across the site. The design infiltration rate for any proposed infiltration features will be reviewed based on the results from the closest infiltration testing site (Drainage Strategy, pg. 11). <u>Topography:</u> The topography of the site is consistently flat, primarily situated at approximately 30mAOD (Above Ordnance Datum). Across the site, the point of lowest elevation is in the south and west reaching a level of 29.8mAOD, while the point of highest elevation reaches 30.61mAOD along the eastern site boundary (Drainage Strategy, pg.8). <u>Local Drainage / Watercourses:</u> The Grand Union Canal runs alongside the southern boundary of the site. The canal functions as a tributary of Fray's River / the River Pinn approximately 1.4km northwest of the proposed site. The canal is regulated by the Canal & River Trust, while the River Pinn is a designated Main River regulated by the Environment Agency (Drainage Strategy, pg. 8). A full utility survey of the site has not currently been completed and therefore is not included within the scope of this Drainage Strategy. For the purposes of this assessment, it is assumed that the existing drainage infrastructure is inadequate and will be replaced by a newly proposed drainage system (Drainage Strategy, pg. 12). <u>Critical Drainage Area:</u> Yes – Group 1_015
h) Development Proposal	Demolition of existing buildings and structures and redevelopment of the site to provide modern employment units for flexible use across classes E(g)(iii), B2, B8 with ancillary office areas for car parking, landscaping, service yard areas and ancillary structures, as well as associated works (Application Form, pg. 5).
i) Total Site Area	9000 m² (Drainage Strategy, pg. 7) Is this included within the calculations? Yes ☒ Drainage calculations have a total area of 8220 m² No ☐
j) Change in <u>Impermeable</u> Area	Existing = 9000 m² Proposed = Not provided Change = N/A

2. Application Documents Received and Reviewed

File Name	Document Date / Revision / Version
Application Form	17 September 2025
Drainage Strategy	23 May 2025, Version 1.0
Flood Risk Assessment	16 September 2025, Version 2.0

3. Review Record – Planning Application

Parameter	Requirements ¹	Review Comments / Discussion ²	Assessment & Reasoning Pass / Fail / More Information Required
a) Runoff Destination (at site boundary)	PPG – Paragraph 56 London Plan – Policy SI 13 National Standards for SuDS – Standard 1	<i>Cross the following features / destination locations proposed:</i> 1. Rainwater harvesting and/or blue roofs ☐ 2. Infiltration ☒ 3. Green infrastructure (e.g. Green roofs, rain gardens) ☐ 4. Watercourse ☐ 5. Surface water sewer ☐ 6. Combined sewer ☐ Summary of proposal: <i>If 1, 2 and/or 3 have not been proposed, has sufficient justification been given as to why? *Rainwater harvesting shall be considered in all circumstances</i> Yes ☐ No ☒ <i>Has on-site infiltration testing been done?</i> Yes ☒ No ☐ Infiltration testing was completed on site in accordance with BRE Digest 265 (falling head test). Three tests were conducted at three locations across the site (Drainage Strategy, pg. 11). <i>Infiltration rate proposed:</i> 4.32×10^{-6} m/s (Drainage Strategy, pg. 11). <i>How many discharge points off-site are proposed?</i> No discharge points off-site are proposed	FAIL – the applicant has not provided justification on why rainwater harvesting has not been considered.
b) Flood Risk Outside of Development	S1: Do S2/S3 and S4/S5 apply? (discharge to sea / estuary) Any other flood risk on or close to site? (e.g. fluvial or groundwater)	<i>Is the site draining to tidal waters?</i> Yes ☐ No ☒ Infiltration proposed	PASS – The site is not draining to tidal waters, the site is not likely to impact upon local groundwater flood risk and it is not within a fluvial flood zone.

¹ 'S' references are to the [Non-Statutory Technical Standards for Sustainable Drainage Systems](#)

² Include clear references to documents & chapter / page numbers for evidence

Parameter	Requirements ¹	Review Comments / Discussion ²	Assessment & Reasoning Pass / Fail / More Information Required
		<i>Is the development likely to impact upon local groundwater flood risk?</i> Yes ☐ No ☒ (Flood Risk Assessment, pg. 19) <i>Is the site within fluvial flood zone?</i> Yes ☐ No ☒ (Flood Risk Assessment, pg. 14)	
d) Volume Control	S4 – Greenfield – Maintain same runoff volume for 100yr 6hr event S5 – Developed – Achieve greenfield volume as close as <u>reasonably practical</u> and not exceed existing S6 – No adverse flood risk to others Revised Climate Change Allowances – Applied correctly? Local Requirements? (SFRA / SPG / Local Plan Policies)	<i>Greenfield runoff volume (m³):</i> Information not provided. <i>Existing runoff volume (if not currently a greenfield site) (m³):</i> Information not provided. <i>Proposed runoff volume (m³):</i> No runoff is proposed as the site is to discharge via infiltration. <i>Volume of proposed attenuation feature(s) (m³):</i> Infiltration Tank 1 = 265.5 m³ Infiltration Tank 2 = 334.4 m³ Porous Paving 1 = 17.226 m³ Porous Paving 2 = 4.666 m³ Porous Paving 3 = 3.629 m³ Porous Paving 4 = 4.847 m³ Porous Paving 5 = 22.448 m³ Porous Paving 6 = 51.019 m³ (Drainage Strategy. pg. 45-52)	MORE INFORMATION REQUIRED – The applicant has not provided the greenfield or existing runoff volume. Although, the site is proposed to discharge fully by infiltration, it is important to establish if the proposed attenuation features provide sufficient volume for the site. The volumes of all the proposed attenuation features have been provided.
d) Flood Risk	3.35 – No flooding occurs on site for 30yr rainfall event 3.36 – No flooding of buildings in 100yr rainfall event 3.40 – Flooding in excess of 100yr rainfall managed to minimise risks* (including management of exceedance flow paths) 3.35 to 3.40 - Refer CIRIA Designing for Exceedance. *NB: Exceedance flooding should cover 100yrFlooding plus climate change allowance Local Requirements? (SFRA / SPG / Local Plan Policies)	<i>Any flooding predicted on site in a 1 in 30 yr event?</i> Yes ☐ No ☒ (Drainage Strategy, pg. 74) <i>Any flooding predicted on site between a 1 in 30 and 1 in 100 yr event?</i> Yes ☒ No ☐ <i>Flooding is predicted in the 100 year and 100 years + 20% CC (Drainage Strategy, pg. 73 and 77)</i> <i>Have calculations been submitted to support 3.35 and 3.36 alignment?</i> Yes ☒ No ☐ <i>How is exceedance being managed?</i> Information to be provided	MORE INFORMATION REQUIRED – Flooding is predicted on site for the 1 in 100-year event with and without climate change. Exceedance flow routes should be provided on a diagram with a description of how exceedance is to be managed. The applicant has not provided the proposed impervious area, so it cannot be compared to the total site area in the calculations. The applicant has only included 8220m² of contributing catchment area. They should clarify where the remaining 780m² will drain to.
e) Maintenance	Ministerial Statement – 18 Dec 2014 – Clear	<i>Does each proposed drainage component have numerous routine</i>	MORE INFORMATION REQUIRED – the applicant has not named the and

Parameter	Requirements ¹	Review Comments / Discussion ²	Assessment & Reasoning Pass / Fail / More Information Required
	arrangements for adoption and ongoing maintenance 1.26 – Pumping should only be used where gravity is not feasible <u>CDM Regulations 2015</u> Local Requirements? (SFRA / SPG / Local Plan Policies)	<i>maintenance tasks and frequencies proposed?</i> Yes ☒ No ☐ <i>Has a maintenance owner been stated?</i> Yes ☐ No ☒ <i>Have the health and safety risks associated with the construction, operation and maintenance and decommissioning of the drainage system been taken into account?</i> Yes ☐ No ☒	health and safety risks have not been taken into account.
f) Any other matters?	4 – Water quality 5 – Amenity 6 – Biodiversity Local Requirements? (SFRA / SPG / Local Plan Policies)	<i>Is pollution of receiving waters likely?</i> Yes ☒ No ☐ <i>Have mitigation methods been proposed (e.g. a petrol interceptor)?</i> Yes ☒ No ☐ Two petrol separators (SPEL ESR Full Flow Treatment System or similar) (Drainage Strategy, pg. 17). <i>Have benefits for amenity been maximised through the creation of multi-functional places and landscapes?</i> Yes ☒ No ☐ <i>Is there evidence of consideration and inclusion of biodiversity, proportionate to the scale and ecological sensitivity of the site?</i> Yes ☒ No ☐	MORE INFORMATION REQUIRED – Petrol separators have been proposed as part of water quality; however these are not shown on the drainage plan. The applicant has provided soft landscaping areas on a site which previously had none.

4. Response from LLFA

a) Review Summary

This application has not sufficiently demonstrated the use of the London Plan's drainage hierarchy and is proposing the following key items:

- **Type of development:** Major
- **Flood risk:** Fluvial Flood Zone 1. Areas of low, medium, and high surface water flood risk.
- **Types of conveyance / attenuation features:** Geocellular soakaways and permeable paving.
- **Runoff rate restriction (l/s):** No runoff is proposed off-site as all surface water will be managed via infiltration.
- **Proposed storage volume (m³):** the total proposed storage volume is 703.735 m³

- **Maintenance plan:** Maintenance tasks and frequencies provided for all drainage features, but not maintenance owner has been stated.

b) Recommendation and Requests

We recommend that the following information is provided before approval of the application. To address this, the applicant should submit information which:

- Demonstrates management of surface water within the site is in line with the hierarchy set out in Policy SI 13 of the London Plan (2021). Justification must be provided for why rainwater harvesting has not been considered.
- Provides greenfield and existing runoff volumes. While the site is proposed to discharge fully via infiltration, it is needed to verify that the proposed attenuation features offer appropriate capacity to accommodate the site's runoff.
- Clarifies where the remaining 780m² of the site area will drain to, since only 8220m² of the site area has been accounted for within the calculations.
- Provide a drainage plan which shows where the petrol separators are located within the site.
- Name of the maintenance owner and considers the health and safety risks associated with the construction, operation and maintenance and decommissioning of the drainage system
- Exceedance flow routes should be provided on a diagram with a description of how exceedance should be managed.

5. Further Information Submitted/ Additional Reviews

Date	Reviewer	Previously Outstanding Matters	Further Information Received ³	Review Comments / Discussion	Assessment & Reasoning Pass / Fail / More Information with justification
24/03/26	IG	Demonstrates management of surface water within the site is in line with the hierarchy set out in Policy SI 13 of the London Plan (2021). Justification must be provided for why rainwater harvesting has not been considered.	5027861-RDG-XX-XX-T-C-000550-P03-Drainage Strategy (p.15)	The applicant has justified why rainwater harvesting is not suitable for this site. 'This is due to there not being a high enough grey water demand across the site to benefit from the installation of a rainwater reuse system and there is also not a significant area of landscaping which could benefit from a rainwater harvesting system for irrigation'.	PASS – The applicant has provided suitable justification for the non-inclusion of rainwater harvesting.
		Provides greenfield and existing runoff volumes. While the site is proposed to discharge fully via infiltration, it is needed to verify that the proposed attenuation features offer appropriate capacity to accommodate the site's runoff.	5027861-RDG-XX-XX-T-C-000550-P03-Drainage Strategy (p.15)	'The brownfield runoff volume is calculated as 670m ³ . The greenfield runoff volume has been calculated, for the same storm event as the brownfield runoff volume, as 154.5 m ³ using the FSR method in InfoDrainage.'	PASS – The greenfield and existing runoff volumes have been provided.
		Clarifies where the remaining 780m ² of the site area will drain to, since only 8220m ² of the site area has been accounted for within the calculations.	5027861-RDG-XX-XX-T-C-000550-P03-Drainage Strategy (p.59-89)	The site area in the calculations has not been updated and remains as using 8220m ² . As the site has shown an appropriate infiltration rate however, and the areas missing are permeable areas, this is taken to be sufficient.	PASS – The full site area has not been included in the calculations, however this is sufficient as these are permeable areas and infiltration has been shown to be suitable at the site.
		Provide a drainage plan which shows where the petrol separators are located within the site.	5027861-RDG-XX-XX-T-C-000550-P03-Drainage Strategy (p.44 & 45)	The applicant has now included petrol separators on a site drawing, along with the other proposed SuDS.	PASS – The location of the petrol separators are included in the drainage drawings.
		Name of the maintenance owner and considers the health and safety risks associated with the construction, operation and maintenance and decommissioning of the drainage system.	5027861-RDG-XX-XX-T-C-000550-P03-Drainage Strategy (P.21 & 24)	Maintenance confirmed to be undertaken by the site landlord, LMO Overseas Investments Limited, for the duration of use. It is stated that the contractor/maintenance provider should develop a risk assessment and method statement prior to the	PASS – The name of the maintenance owner has been provided, and health and safety risks associated with the construction, operation and maintenance and

³ Include clear references to documents & chapter / page numbers for evidence

Date	Reviewer	Previously Outstanding Matters	Further Information Received ³	Review Comments / Discussion	Assessment & Reasoning Pass / Fail / More Information with justification
				commencement of any works, and appropriate measures should be taken to mitigate health and safety risks associated with the construction, operation and maintenance and decommissioning of the drainage system.	decommissioning of the drainage system will be considered as part of a risk assessment prior to the commencement of any works.
		Exceedance flow routes should be provided on a diagram with a description of how exceedance should be managed.	5027861-RDG-XX-XX-T-C-000550-P03-Drainage Strategy (p.16)	A presumed overland flow route has been provided. The overland flow is aimed away from the buildings and towards SuDS features. Following the definition of finished floor levels by the architects, a full levels model can be developed, and an overland flow routing plan will be produced.	TO BE CONDITIONED – A detailed exceedance flow diagram should be provided once the finished floor levels have been confirmed.

24/03/26

6. Response from LLFA

a) Review Summary

This application has changed from the previous application submitted in the following way(s):

- **Type of development:** N/A
- **Types of conveyance / attenuation features:** N/A - Geocellular soakaways and permeable paving.
- **Runoff rate restriction (l/s):** N/A
- **Runoff rate restriction per hectare (l/s/ha):** N/A
- **Runoff attenuation volume (m³):** N/A
- **Maintenance plan:** The maintenance owner has been named.
- **Any other previously identified outstanding matters:** An updated report has been provided with additional information following previous comments.

b) Recommendation and Requests

We recommend approval of the application, with conditions.

c) Conditions Proposed

☒ Prior to commencement (except for demolition, ground and enabling work) any relevant phase of this development (excluding demolition and site clearance), a scheme for the provision of sustainable water management shall be submitted to, and approved in writing by the Local Planning Authority in consultation with the relevant stakeholders. The scheme shall clearly demonstrate how it manages water and demonstrate ways of controlling the surface water on site by providing information on:

a) Sustainable Drainage features:

- i. Surface water discharge - the submitted drainage strategy must identify the proposed method and location of discharging collected surface water from the site in accordance with the hierarchy set out in Policy SI 13 of the London Plan (2021). Where the proposal does not utilise the most sustainable solution, justification must be provided.
- ii. SuDS - the submitted drainage strategy should incorporate Sustainable Drainage System (SuDS) elements that are embedded, where practicable, within the landscaping plan for the development. Preference should be given to above-ground SuDS elements that control water at source and provide wider biodiversity, water quality and amenity benefits.
- iii. Runoff rates - provide the greenfield and proposed runoff rates for a variety of return periods including 1 in 1 year, 1 in 30, 1 in 100, and 1 in 100 plus 40% climate change. Developments should aim to meet greenfield runoff rates unless a suitable justification can be provided.
- iv. Drainage calculations - include calculations to demonstrate that the volume of storage and size of drainage features provided is adequate to control surface water for a range of storm duration and rainfall intensities for the entire site area for events up to and including the critical 1 in 100 plus 40% climate change rainfall event.
- v. Exceedance routes - provide a plan showing the route surface water will take through the development for rainfall events exceeding the 1 in 100 year event. Where it is intended to store water on the ground surface, the maximum extent of overland flooding should be mapped and the depth of the flooding confirmed. Safe access and egress for the site must be demonstrated.

b) Long-term management and maintenance of the drainage system.

- i. Provide a Management and Maintenance Plan for the drainage system that includes clear plans showing all of the drainage network above and below ground, and identifies the responsibility of different parties for each component of the drainage network.
- ii. Include details of the necessary inspection regimes and maintenance frequencies.

Thereafter the development shall be implemented and retained/maintained in accordance with these details for as long as the development remains in existence.

Reason: To ensure that surface water run off is controlled and to ensure the development does not increase flood risk, in compliance with Policy EM6 of the Hillingdon Local Plan: Part 1 (2012), Policy DMEI 9 and DMEI 10 of the Hillingdon Local Plan Part 2 (2020), Policies SI 12 and SI 13 of the London Plan (2021), the National Planning Policy Framework (2021); and Planning Practice Guidance (Flood Risk and Coastal Change March 2014).

☒ No building hereby permitted shall be occupied until evidence (photographs and installation contracts) is submitted to demonstrate that the sustainable drainage scheme for the site has been completed in accordance with the submitted details. The sustainable drainage scheme shall be managed and maintained thereafter in accordance with the agreed management and maintenance plan for all of the proposed drainage components.

Reason: To comply with the Non-Statutory Technical Standards for Sustainable Drainage Systems, the National Planning Policy Framework (Paragraph 103), the London Plan (Policies SI 12 and SI 13) along with associated guidance to these policies and Hillingdon Council's Local Plan Policy EM6.