

2. SITE INFORMATION

2.1 Site Location

The site is located within Hayes, London and is bordered to the immediate south by the A4, to the east the M4 and to the north west by existing development (**Figure 1**). Heathrow airport is located approximately 200m to the south. See **Table 1** for the site information.

Table 1: Site Referencing Information

Site Referencing Information	
Site Address	Bath Road - Sipson Way, Heathrow Airport, Hayes, London UB7 0DP
Grid Reference	TQ074770
X (Easting), Y (Northing)	507450, 177071

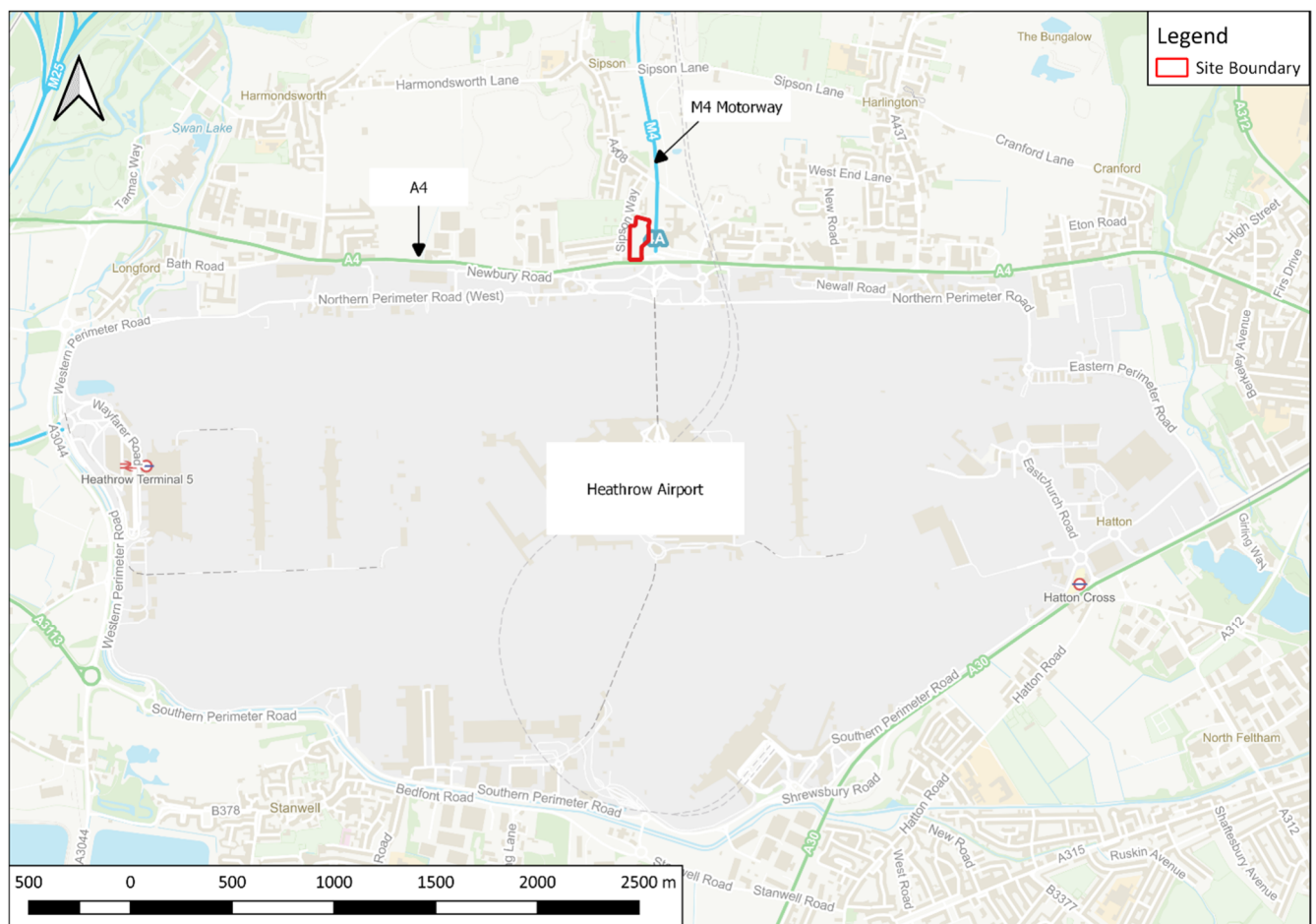


Figure 1: Site Location Plan

2.2 Topography

The site is very flat with less than a metre difference across the whole site. The site slopes down slightly from 26.3 m AOD in the west to 25.7 m AOD in the east. It also slopes down slightly from 26.3 m AOD in the south to 26 m AOD in the north. Figure 2 shows the 1m contours on the site taken from EA 2020 1m LiDAR.

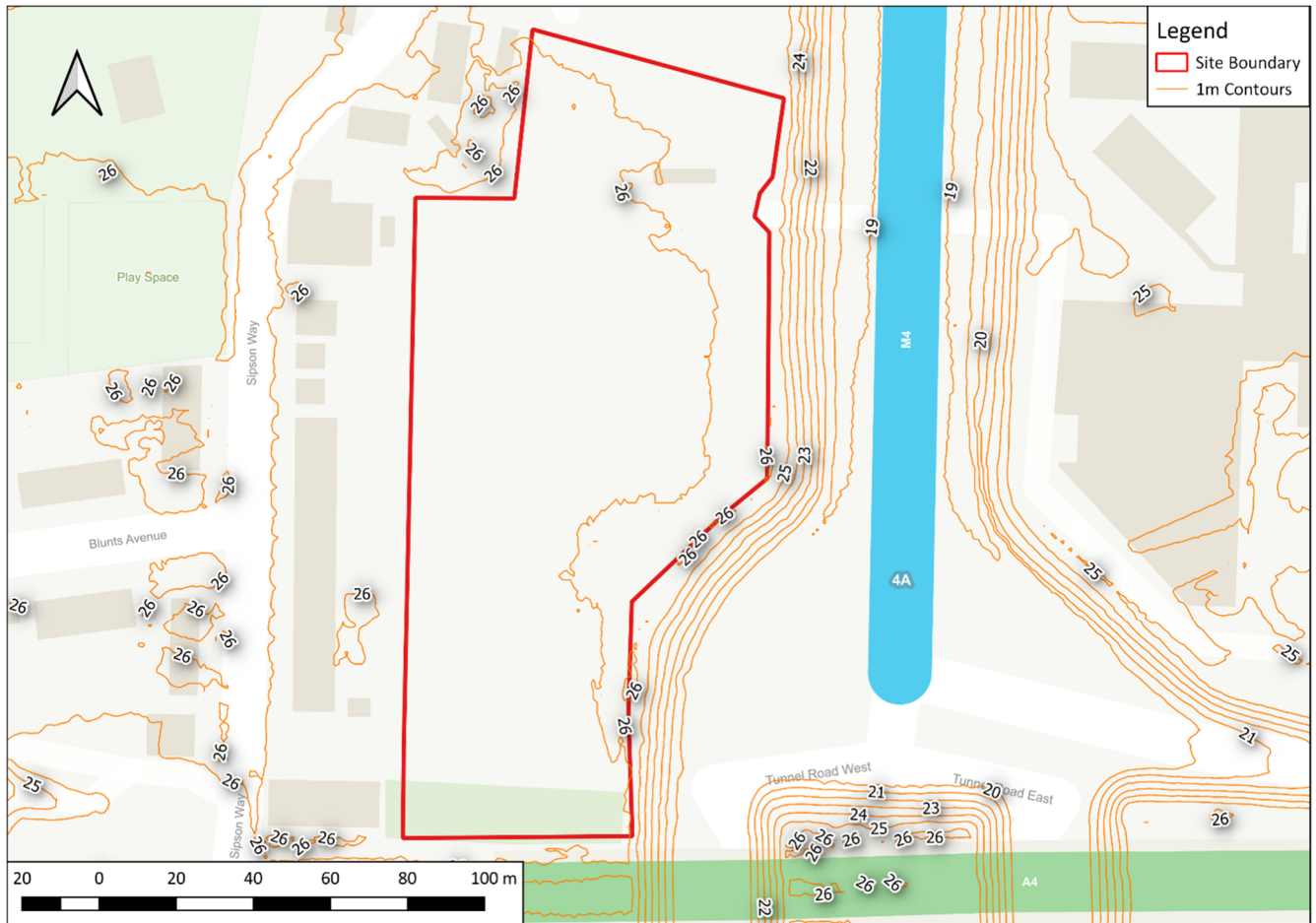


Figure 2: Site Topography from EA 2020 1m LiDAR.

2.3 Site Description

The site is currently used as a car park and is owned by Heathrow NCP Property Limited. The site is currently accessed via a bridge on the eastern boundary which passes over the M4.

2.4 Proposed Development

Demolition of existing car park and redevelopment for industrial (Use Class B2); storage or distribution (Use Class B8); and/or light industrial (Use Class E(g)(iii)) purposes, with ancillary office space, landscaping, car parking, servicing and access arrangements. It is proposed that the vehicular access point will be via the A4 and southern site boundary.

3. SOURCES OF FLOOD RISK

3.1 Fluvial Flooding

According to the Environment Agency's Flood Map for Planning, the site is located entirely within Flood Zone 1 (see **Figure 3**). Therefore, it has a low risk of flooding ($\leq 0.1\%$ AEP of fluvial flooding in any given year). The nearest area at risk of flooding is approximately 2.1km east of the site. This flooding is associated with the River Crane which flows in a southerly direction.

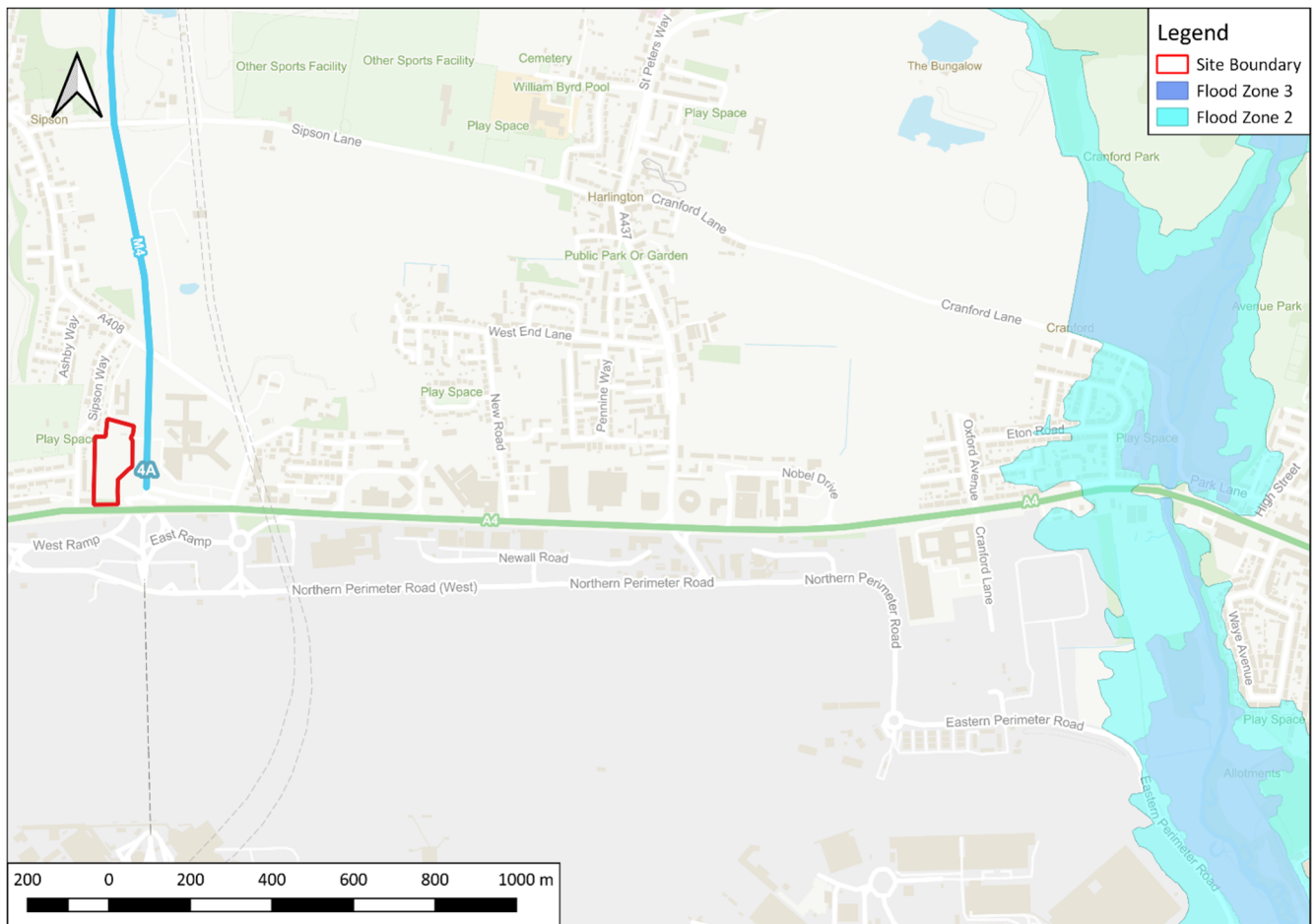


Figure 3: EA's Flood Map for Planning

For reference, the Environment Agency Flood Zones are defined as follows:

- Flood Zone 1 (Low Risk) comprises land assessed as having a $\leq 0.1\%$ AEP of fluvial flooding in any given year, equivalent to the $\geq 1,000$ yr return period flood event.
- Flood Zone 2 (Moderate Risk) comprises land assessed as having a 0.1-1% AEP of fluvial flooding in any given year, equivalent to the 1,000-100yr return period flood event.
- Flood Zone 3 (High Risk) comprises land assessed as having a $\geq 1\%$ AEP of fluvial flooding in any given year, equivalent to the ≤ 100 yr return period flood event.
 - » Flood Zone 3a (High Risk) comprises land assessed as having a 1-5% AEP of fluvial flooding in any given year, equivalent to the 100-20yr return period flood event.
 - » Flood Zone 3b (Functional Floodplain) comprises land where water has to flow or be stored in times of flood. Local planning authorities should identify in their Strategic Flood Risk

Assessments areas of functional floodplain and its boundaries accordingly, in agreement with the Environment Agency.

There is no reported flooding at the site on the Environment Agency's historic flood map. According to the West London Strategic Flood Risk Assessment (SFRA), there have been no recorded incidents of fluvial flooding at the site. Therefore, the site can be concluded to be at low risk of fluvial flooding.

3.2 Tidal Flooding

Due to the inland nature of the site, the site is concluded to be at low risk of tidal flooding.

3.3 Surface Water Flooding

The EA's Flood Risk from Surface Water mapping, as shown in **Figure 4**, shows that the site is at very low risk of surface water flooding.

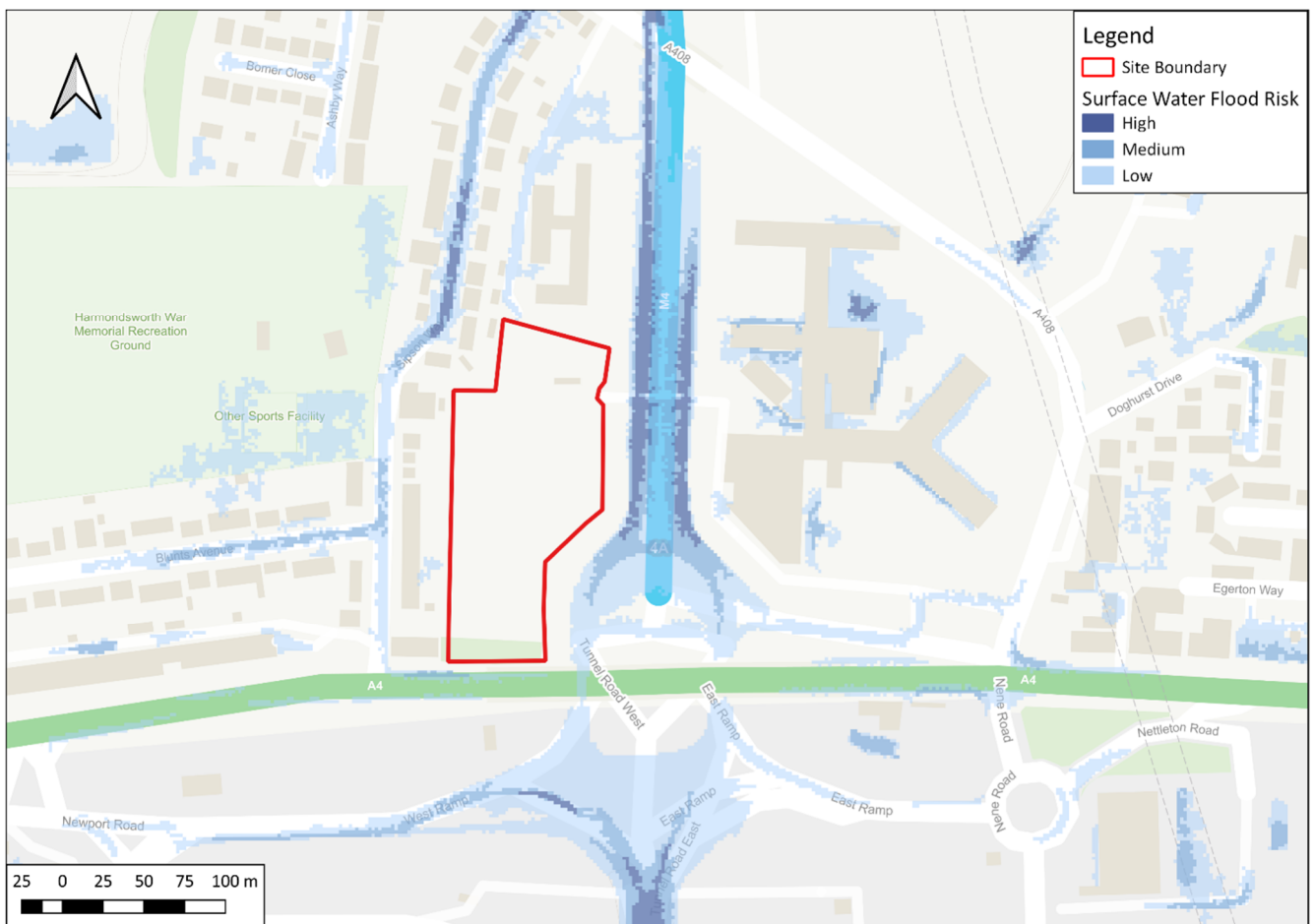


Figure 4: EA Flood Risk from Surface Water Mapping

According to the West London Strategic Flood Risk Assessment (SFRA), there have been no recorded incidents of surface water flooding at the site.

3.4 Groundwater Flooding

British Geological Survey (BGS) mapping shows the site to be underlain by superficial Langley silt member, which overlies the London Clay formation comprising of clay, silt and sand. The groundwater flooding risk is low on the site due to the impermeable nature of the clay. Within the BGS mapping water was found at a borehole adjacent to the site at a depth of 40m. This indicates there is a low risk of groundwater flooding. According to the West London SFRA, the site is predominantly less than 25% susceptible to groundwater flooding.

3.5 Infrastructure Flooding

Given the existing developed nature of the surrounding area there is expected to be an engineered sewerage system in the area. However, whilst there is consequently the potential for the sewer network to fail / surcharge and result in overland flows, West London SFRA records no such incidents. Therefore, the site is concluded to be at low risk of sewer failure flooding.

A review of the EA's Flooding from Reservoirs map indicates that the site is not within the maximum extent of flooding in the event of a failure of any artificial source. The site is therefore concluded to be at low risk of artificial source / infrastructure failure flooding.

4. NATIONAL PLANNING POLICY FRAMEWORK

4.1 Sequential Test

The NPPF Sequential Test requires that a sequential approach is followed to steer new development to areas with the lowest probability of flooding (i.e. Flood Zone 1, then 2, then 3).

This assessment has demonstrated that the site is on land designated as Flood Zone 1 by the EA's Flood Zone Mapping and therefore the sequential test is not required

4.2 Exception Test

The proposed industrial development falls under the category of 'less vulnerable' development in accordance with Table 2 of the Flood Risk and Coastal Change National Planning Practice Guidance (NPPG).

Table 2 (taken from Table 3, Paragraph 067 of NPPG) shows that 'less vulnerable' developments are acceptable within Flood Zone 1, 2 and 3a without the requirement for an Exception Test. As such, the site is concluded to not be subject to the Exception Test.

Table 2: NPPG Flood Zone Compatibility Matrix

Flood Risk Vulnerability Classification	Essential Infrastructure	Water Compatible	Highly Vulnerable	More Vulnerable	Less Vulnerable
Flood Zone 1	✓	✓	✓	✓	✓
Flood Zone 2	✓	✓	Exception Test Required	✓	✓
Flood Zone 3a	Exception Test required	✓	x	Exception Test Required	✓
Flood Zone 3b	Exception Test required	✓	x	x	x

4.2.1 Safe Access and Egress

The site access is through the A4 which is at low risk of all types of flooding, therefore safe access and egress to the site is achievable.

5. SUMMARY

This report has considered the flood risk posed to the proposal site from a variety of sources of flooding, as defined by the NPPF.

The report has confirmed that site is located within Flood Zone 1 and thus not at risk of fluvial or tidal flooding. Therefore, there will be no loss of floodplain storage as a result of the proposed development.

On the basis that the Application is within Flood Zone 1, it is concluded that the Sequential and Exception Tests need not be applied in accordance with the requirements of the NPPF.

The site is shown to be at very low risk of surface water flooding. There have been no reported cases of surface water flooding at this site.

The site is shown to have low risk of groundwater and infrastructure flooding.

Furthermore, the site:

- Is suitable in the location proposed.
- Will be adequately flood resistant and resilient.
- Will not place additional persons at risk of flooding
- Will not increase flood risk elsewhere as a result of the proposed development through the loss of floodplain storage or impedance of flood flows.
- As such, the Application is concluded to meet the flood risk requirements of the NPPF.

Hydrock Consultants Limited