

Flood Risk Assessment

PROPOSED SINGLE STOREY REAR AND SIDE EXTENSION

at

146 ASHFORD AVENUE, HAYES UB4 0ND



Image showing front of site

February 2026

1- INTRODUCTION

- This FRA has been prepared in support of a planning application for the proposed single storey rear and side extension at 146 Ashford Avenue, Hayes, UB4 0ND.
- According to the Environment Agency Flood Map for Planning, the site lies within **Flood Zone 2 (Medium Probability)** (please see appendix A) and therefore an FRA is required.
- The National Planning Policy Framework (NPPF) requires that development proposals located within Flood Zone 2 are supported by a site-specific Flood Risk Assessment.
- In addition, Risk of Flooding from Surface Water mapping identifies the site within an area of **High Surface Water Flood Risk**.

2- SITE LOCATION

- The property is a two storey end of terrace dwelling located on the southern side of Ashford Avenue in Hayes, within the London Borough of Hillingdon.
- The site is a small site i.e. less than 0.25 hectares with a relatively flat topography.
- The site is entirely located in the Environment Agency's Flood Zone 2 (Please see appendix A).
- The nearest main watercourse is **Yeading Brook**, located to the west of the site.
- There is no known history of flooding affecting the site.

3- PROPOSED DEVELOPMENT

- The proposal is a ground floor, rear and side extension.
- The proposal does not involve:
 - new dwelling
 - subdivision of the site
 - lowering of ground levels
 - introduction of basement accommodation
 - ground floor sleeping accommodation
- The extension is minor in scale and forms an enlargement to the existing dwelling only.

4- FLOOD RISK ASSESSMENT

Flooding from Rivers and Sea:

- The Environment Agency Flood Map confirms that the selected location is in Flood Zone 2, an area with a medium probability of flooding.
- Flood Zone 2 is defined as land having between a 1 in 100 and 1 in 1,000 annual probability of river flooding (1%–0.1%)

Surface Water Flooding

- Environment Agency Risk of Flooding from Surface Water mapping indicates that the site lies within an area identified as being at High Risk of Surface Water Flooding.
- “High Risk” is defined as “Greater than or equal to a 1 in 30 (3.3%) annual probability of surface water flooding.”

5- IMPACT OF DEVELOPMENT ON FLOOD RISK ELSEWHERE

- The proposed development:
 - Does not involve raising ground levels
 - Does not displace floodplain storage
 - Is located outside Flood Zone 3
 - Is minor in scale
- Therefore:
 - There will be no loss of functional floodplain
 - There will be no increased flood risk to neighbouring properties

6- DRAINAGE & MITIGATION STRATEGY

- Given the High Surface Water Risk classification, the following robust measures are incorporated:
 - New thresholds set minimum 150mm above adjacent external ground levels.
 - External ground levels graded away from building at minimum 1:60 fall.
 - No redirection of flow toward adjoining properties.
 - Soakaway provision subject to BRE365 testing, a minimum of 5m from building foundations.
 - Rainwater harvesting water butts.
 - Permeable paving will be installed externally.
 - Garden and permeable surfaces with green areas will absorb the rainfall into the ground and discharge it back into the local ground water.
- Given High Surface Water Risk, the extension will incorporate:

- Solid concrete slab construction
 - Continuous DPM tied into DPC
 - Closed-cell insulation below screed
 - Raised electrical sockets
 - Non-return valves on drainage
 - Removable airbrick covers (if required)
 - Water-resistant internal finishes at low level
- Safe Refuge & Warning:
 - Upper floor accommodation provides safe refuge.
 - Occupiers to register with EA Flood Warning Service
 - Emergency egress available via side elevation, through egress windows.
 - The proposals do not materially alter the current regimes or increase an area of hard standing. The present water table will be unaffected.

7- CLIMATE CHANGE CONSIDERATIONS

- Surface water systems designed to accommodate:
 - 1 in 100 year storm event
 - +40% climate change uplift
- This anticipates Environment Agency Thames Basin allowances and London Plan requirements.
- The development will therefore remain safe for its lifetime (minimum 100 years residential design life).

8- CONCLUSIONS

- The site is:
 - Located within Flood Zone 2
 - Located within High Surface Water Risk area

However:

- The development is minor in scale.
 - No increase in vulnerability occurs.
 - No floodplain displacement occurs.
 - Surface water will be managed through enhanced SuDS.
 - Climate change allowance has been incorporated.
 - Exceedance routing has been addressed.
 - Flood resilience measures are included.
- Accordingly, the proposed single storey rear and side extension at 146 Ashford Avenue is considered acceptable in flood risk terms.