

FLOOD RISK ASSESSMENT

Proposed Minor Development:

45 PINN WAY RUISLIP MIDDLESEX HA4 7QG

Dated : 29 November 2018

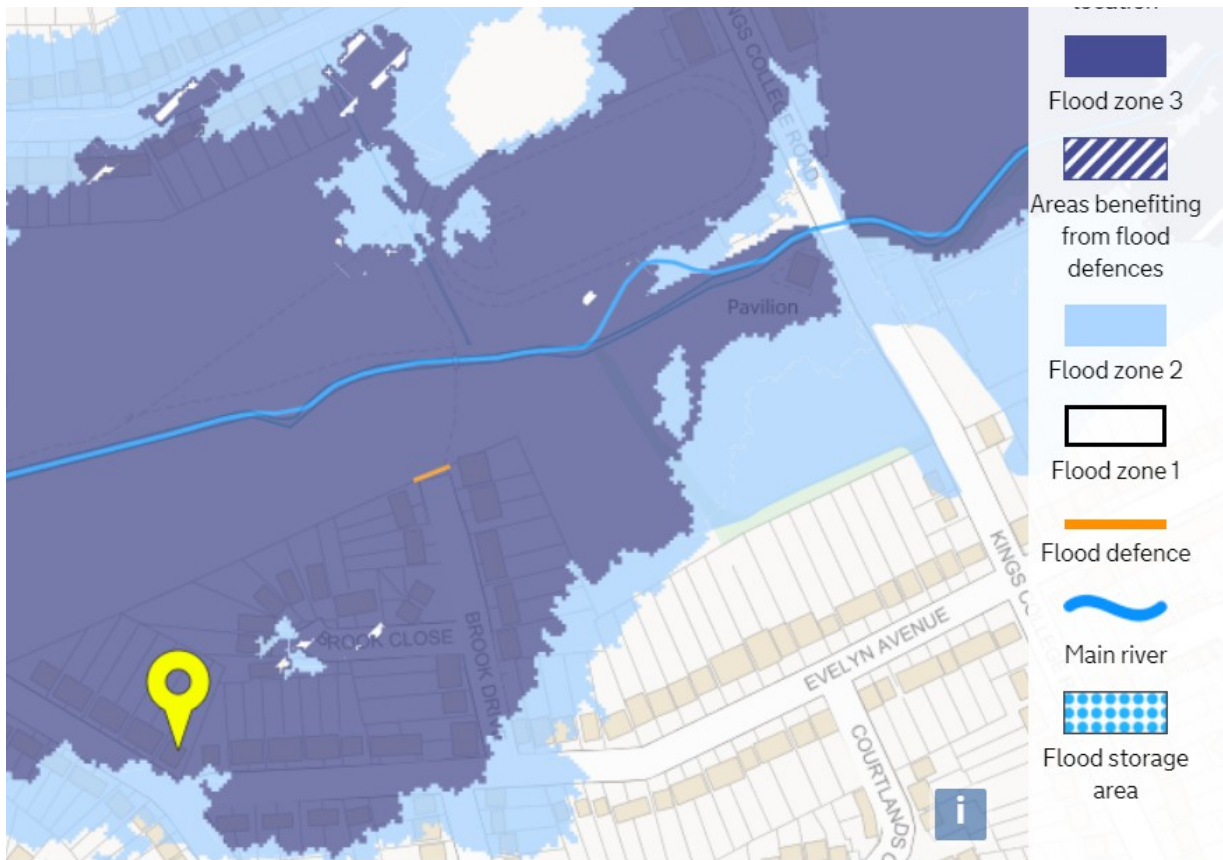


GEOGRAPHICAL LOCATION



SITE MAP SHOWING EXTENSION IN BLUE

ENVIRONMENT AGENCY FLOOD MAPPING FOR PLANNING



PROPOSED RESIDENTIAL EXTENSION AT 45 PINN WAY RUISLIP MIDDLESEX HA4 7QG

FLOOD RISK ASSESSMENT / DESK TOP STUDY.

This study report is compiled to accompany a planning application. Detailed plans are provided within the application . The report is compiled under criteria within the National Planning Policy Guidance (NPPG) and the Environment Agency (EA) Advisory Notes to Local Authorities.

As can be seen from the mapping above the latest EA mapping shows the site lies in Flood Zone 3 . This is considered a minor development within NPPG. Under NPPG it states that minor developments are unlikely to cause significant flood risk unless they :

- Have an adverse effect on a watercourse , flood plain or its flood defences
- Would Impede access to flood defence and management facilities, or
- Where the cumulative impact of such developments would have a significant effect on local flood storage capacity or flood flows .

None of the above applies in this case.

The NPPG definition of minor development is as follows :

The minimum requirements for an FRA that is submitted to the Local Planning Authority for minor development within Flood Zone 1/3, in relation to flood risk, is defined as follows,

1. **minor non residential extensions::** industrial/commercial/leisure etc. extensions with a footprint less than 250 m².
2. **Alterations::** development that does not increase the size of buildings e.g. alterations to the external appearance.

householder development: For example; sheds, garages, games rooms etc. within the curtilage of the existing dwelling, in addition to physical extensions in the existing dwelling itself.

The proposed extension is very much below the 250sq.metre ceiling.

According to the EA's advices the minimum requirements for an FRA that is submitted to the Local Planning Authority for Residential/Industrial/Commercial extensions less than 250m² within Flood Zone 3 should confirm that:

Floor levels within the proposed development will be set no lower than existing levels.

AND

Flood proofing of the proposed development has been considered by the applicant and will be incorporated where appropriate.

OR

Floor levels within the extension will be set 300mm above the known or modelled 1%(1 in 100 chance each year) river flood level or 0.5% (1 in 200 chance each year) tidal and coastal flood level. This must be demonstrated by a plan to OS Datum/GPS showing finished floor levels relative to the known or modelled flood level.

It is considered that paragraphs 1 and 2 are appropriate for this development .

Surface Water/Groundwater Flood Risk

From the EA mapping it can be seen that the threat from surface water in this area is very low (from 0.00 to 0.300mm).

Groundwater / Sustainable drainage

The Cranfield Institute logs groundwater conditions all over the country . It states that at this location there is impeded drainage which spreads to streams in the area due to loamy and clayey soil conditions . In which case it would be recommended that over capacity water butts be used to save water from the extension . The proposed footprint of this structure is minimal and any waters collected could be used for internal washing and toilets and externally could also be used for car washing , general cleaning and for summer irrigation in the garden .

Offsite Implications

With the above recommendations there would be none .

Flood threat / Flood Resilience

This is from the River Pinn over 100metres away from the site to the North.

There would be a “spread” of flood water and if and when any flooding reached the site it would have abated to a great extent as can be seen by the proximity of Flood Zone 2 near the site . It would mean the velocity of water would be low but flood resilience measures should be taken in the new minor construction. There was one occasion when flood water from the river did threaten the house but it got no further than the grounds and did not invade the property.

Flood resilience measures are a precaution during the sustainable life-time of the property. These be taken to a height of 0.3m above ground level . The ground floor of the new build will be at the same height as that existing and consideration should be given to flood proofing the entry door subject to liaison with the local authority's building control department. The authoritative document on combating surface water flooding is the Government document “Improving the flood performance of new building “. This is attached to this report.

CONCLUSION

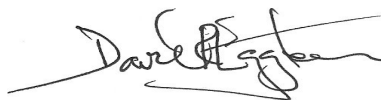
Having considered the possible threat to the site it is evident any threat is low. However a FRA has to consider the sustainable lifetime of the property under assessment which is why we looked at a worst case scenario which may occur during that time

There is no record of the building being flooded in the past. But there could be possible problems from the River Pinn during its sustainable lifetime.

It is considered that the size of the extra footprint for this proposal is so minimal that it will have no effect on the cumulative effect on flooding in the area but as a precaution we have recommended a methodology for site run-off so as not to exacerbate any flood threat there may be within the underlying ground.

There will be no offsite implications and we see no reason for this application to be resisted on flood risk grounds.

Signed

A handwritten signature in black ink, appearing to read 'David Eggleton', with a stylized flourish at the end.

David Eggleton
Managing Director.