Flood Risk Assessment

For

Single storey front, side and rear extension

At

121 Sweetcroft Lane
Uxbridge
Middlesex
UB10 9LQ

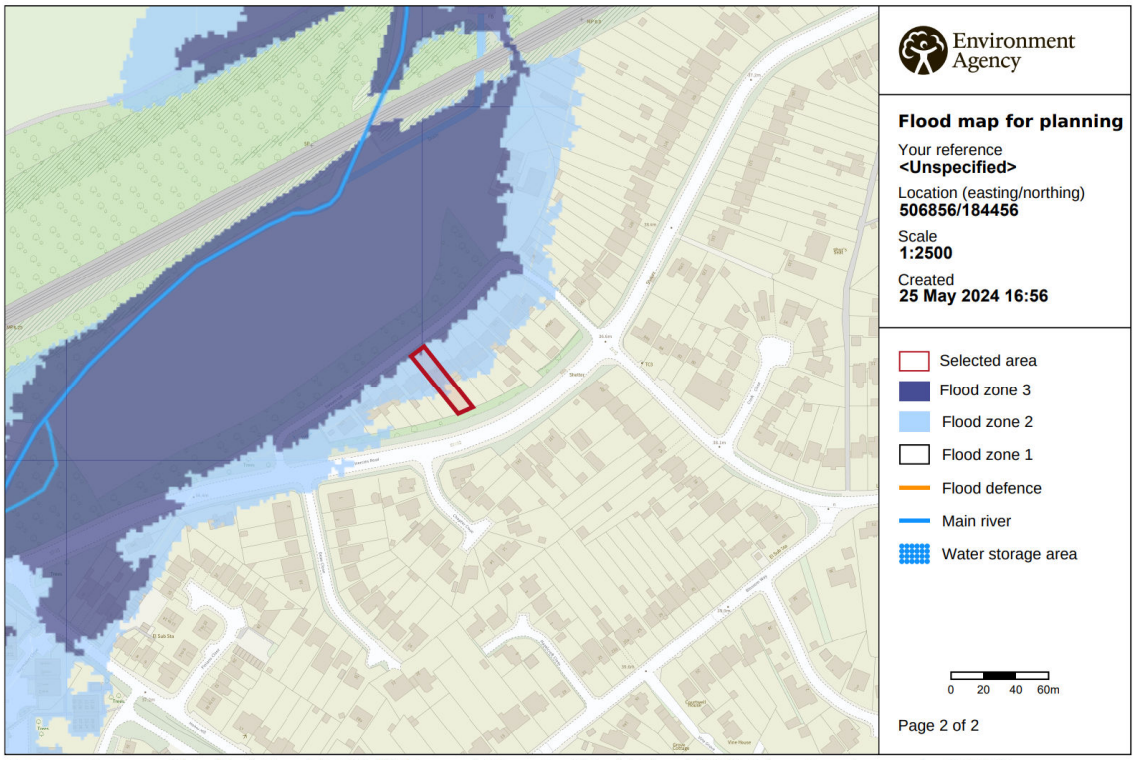
Prepared On

25/05/2024

INTRODUCTION

This Flood Risk assessment is prepared for the property located at:
121 SWEETCROFT LANE, UXBRIDGE, UB10 9LQ.

The site is situated in Flood Zone 2 (/3) and according to the Environment Agency, the land within this zone is assessed as having a 1 in 100 or greater annual probability of river or sea flooding (>1%). Please see the maps below:



PROPOSED DEVELOPMENT

The proposed development would include:

1) Single storey front, side and rear extension

FLOOD ISSUES RELATING TO THE PROPOSED DEVELOPMENT

Surface water will be discharged to the existing surface water drainage system and the proposed soakaway in the rear and front garden which will be installed at least 5m away from any building. Any foul waters will be discharged into the existing foul water system. Non-return valves will be installed at all connection pipes to the main sewer in order to prevent the backing up of foul waters should the outlet become submerged under extreme flood conditions.

EFFECTS OF THE PROPOSED DEVELOPMENT ON FLOOD RISK ON SITE AND IN THE SURROUNDING REGION

The application site is located within a residential area.

It is not anticipated that there will not be any increase in plant debris that might be transported into the local drainage system by surface runoff, given that the surface runoff rates from the site are not expected to increase. Hence there is little risk of drains designed to remove surface water becoming blocked as a result of the proposal.

FLOOD RESILIENCE AND RESISTANCE PROPOSAL

The following flood risk reduction measures could be applied to the development in accordance with
preparing for floods guideline:

- In order to protect the development against the effects of flooding it is also intended that wet and dry proofing measures are incorporated into the project designs. Dry proofing measures are defined as those designed to keep water out of a building. Wet-proofing measures are those that improve the ability of a property to withstand the effects of flooding once floodwaters have entered.

- The extension is to be built and set no lower than the existing ground floor rooms which are currently about 188mm above finished external ground levels.

- The proposed development will have a non-return valve installed at the foul sewer connections to prevent backing-up within the pipes should the system become overwhelmed with floodwater.

- Water-resistant paints can be used on the outside face of external walls. Water resistant render and lime based plaster, ceramic tiles and hydraulic lime coatings can be used where possible on the inside face of the external walls. Damp proof membranes could be installed, lapped and bonded with damp proof courses.

- Cavity walls to incorporate rigid insulation with stainless steel wall ties.

- Walls to be sand and cement rendered internally.

- All timber stud and plasterboard walls at ground floor level are to be avoided.

- Solid timber doors should be installed rather than hollow sections doors.

- Kitchen units are to be built on plastic adjustable legs and UPVC units to be used if possible.

- Separate fridge/freezers, hobs and built in ovens are to be installed. Waterproof coatings to be used on as many suitable surfaces as possible.

- Carpets to be avoided or replaced with rugs/tiles with water resistant grout.

- Low permeability paints to be used instead of wallpaper.

- The proposed floor of the kitchen/utility/family area is to have a tiled finish over a reinforced insulated solid concrete floor slab.

- All utility services such as fuse boxes, meters, mains-cables, gas pipes, phone lines and sockets are to be positioned at high level where practical.

- All proposed electrical sockets are to be raised to a minimum of 450mm.

- Movable flood protection barriers are to be fitted to the existing and proposed doors to prevent water ingress to the house if necessary.

- The new concrete floor slabs will incorporate a Bituthene 3000 self-adhesive rubber/bitumen polyethylene waterproof membrane. This will provide a continuous waterproof tanking system in the even of any flooding. The membrane will be linked back to the existing floor slab to provide increased protection to the main floors. All works to be carried out in accordance with the BSI and BBA standards and certifications.

CONCLUSIONS

In conclusion the proposed development will be safe, without increasing flood risk on site or elsewhere. The residents of the property will not be placed in danger from flood hazards given the site's being in a flood defence area together with the above proposed measures, and should remain safe throughout the lifetime of the proposed development and land use.

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